EV223959476US

UNITED STATES PATENT AND TRADEMARK OFFICE

Utility Patent Application for an Invention titled

INFORMATION DISTRIBUTION SYSTEM

Filed on October 8, 2003

By:

LESTER CHU
803 Columbia Drive
Southlake, TX 76092
Citizenship: U.S.A.

EDWIN HARADA
2005 Primrose Drive
Irving, TX 75063
Citizenship: U.S.A.

DOUGLAS HEATHERLY
513 Graham Drive
Coppell, TX 75019
Citizenship: U.S.A.

TIMOTHY MAHONEY
3621 Shady Brook Drive
Bedford, TX 76021
Citizenship: U.S.A.

JAMES MESSINA
6907 Glenview Lane
Colleyville, TX 76034
Citizenship: U.S.A.

JAMES PALMA
1611 Oak Ridge Drive
Corinth, TX 76210
Citizenship: U.S.A.

Prepared by:

Michael B. Stewart, Registration No. 36,018
Christopher J. Falkowski, Registration No. 45.989
Attorney Docket No.: 65632-0167
Customer No. 010291
Rader Fishman & Grauer, PLLC
39533 Woodward Avenue, Suite 140
Bloomfield Hills, Michigan 48304
(248) 594-0633

INFORMATION DISTRIBUTION SYSTEM

RELATED APPLICATIONS

[0001] The present application claims priority from the provisional patent application titled "INFORMATION DISTRIBUTION SYSTEM" (Serial Number 60/505,597), filed on September 24, 2003, the contents of which is hereby incorporated by reference in its entirety.

BACKGROUND OF THE INVENTION

[0002] The invention is a system and method for distributing information (collectively "information system" or simply the "system"). More specifically, the invention is an information system that makes it easier and more efficient for potential customers to identify potentially desirable providers of goods and/or services (collectively "providers"), while at the same time, making it easier for providers to more effectively "focus" advertising to potentially interested customers.

[0003] The yellow pages and other traditional "hard copy" telephone directories (collectively "phone books") have over the years provided individuals and organizations (collectively "customers") with the ability to obtain information about potential providers of goods and services. Phone books typically organize provider listings ("listings") into a variety of different categories based on the types of the goods, services or other offerings (collectively "products") being offered. For example, an Italian restaurant may be listed under the category of "restaurants." Although many providers are listed in the phone book without any fees being charged by the provider of the phone book, many providers choose to pay advertisement fees in order to obtain larger listings or better placement for their listings. In addition to organizing listings by category, traditional phone books also provide a geographic focus for customers using the phone book. For example, a phone book for the city of Chicago will not include restaurants located in New York City unless the restaurants are affiliated with national chains that also have operations in Chicago. Although phone books do provide customers and providers with a useful way to reach out to each other, phone books suffer from various flaws and limitations that are intrinsic to "hard copy" documents.

[0004] Listings in phone books are inherently static. Advertisers in the phone book cannot update their listings once the phone book is published. Thus, the information provided in a phone book listing or advertisement may include out of date information relating to the location of the business, the operating hours, phone numbers, sales and other time-sensitive events, product offerings, and other potentially important information relating to the provider. Moreover, phone books are not, and cannot be, specifically tailored to the specific needs of a specific customer at a desired time and place. One day, a particular customer may be exclusively interested in looking for restaurants within a particular suburb. On another day, that same person may be solely interested in looking for nightclubs located in a broader metropolitan area. A printed phone book cannot adapt itself to the ever changing specific goals of the customer, or to the specific intentions of the supplier in the context of customers with such goals. The lack of flexibility provided by conventional phone books is particularly evident in evaluating the geographical and categorical goals of the potential customer.

[0005] The functionality of geographical distinctions is limited in phone books. The ability of phone books to incorporate the geographical desires of customers is limited to a single binary variable. Listings are either included in a particular phone book or they are excluded. Phone books do not typically allow the customer to perform a more narrow inquiry limited to a mere subset of the geographical regions covered by the phone book. For example, a phone book for a particular metropolitan area does not typically allow the customer to limit their view to listings within a geographical area that is selected by the customer. Moreover, depending on the location of the particular customer, there may be geographical regions just outside the geographical coverage of the phone book that are closer to the particular customer than the listings provided in the phone book even though the customer is located within the geographical region covered by the phone book. It would be desirable to provide customers with more flexible and sophisticated geographic functionality to provide for a more focused and efficient exchange of information between providers and customers. A hierarchy of geographical distinctions would provide customers with a powerful tool for obtaining the information that they desire.

[0006] The functionality of organizing listings into various subject matter categories is also significantly limited in a traditional printed phone book. Phone books provide listings sequentially because the listings are physically printed on paper. Phone books cannot incorporate a hierarchy of categories without introducing a prohibitive quantity of redundancy. For example, a phone book does not typically include many overlapping categories of different scopes and foci. For example, most phone books do not differentiate between categories organized in a hierarchical fashion. For example, the categories of "retail stores," "consumer electronics," "digital optical equipment," "digital cameras," and "digital video cameras" are distinct from each other, but at the same time, are interrelated as to subject matter. For example, digital video cameras are a type of digital camera, and digital cameras are a type of digital optical equipment. In the context of a phone book, category "hierarchies" are typically limited to a hierarchical "depth" of only one level. True hierarchies of categories are not an option, because the paper medium of a phone book does not provide the dynamic ability to "drill down" or "drill up" a hierarchy. Thus, a customer looking for listings of digital video cameras may have to settle for consumer electronics listings that include providers having nothing to do with digital video cameras. It would be desirable to provide customers with the ability to flexibly navigate categories from within an integrated hierarchy of categories that is more than one level deep. It may also be desirable to provide a fully "normalized" hierarchy of categories and geographical regions so that potential options within a particular area of interest are made accessible to customers in a prioritized manner in accordance with the selections made by customers. The phrase "fully normalized" refers to the ability of a system to potentially distinguish between any two attributes that are differentiated by only a single material distinction. In a normalized hierarchy, differences between data elements are treated differently to the extent of the differences, and similar data elements are treated similarly to the extent of the similarities. A "normalized hierarchy" of relevant information would provide for a more focused and efficient exchange of information between providers and customers. By limiting the ability of customers to "zero in" and focus on the listings that are of interest, traditional phone books force customers to wade through information that is not of interest to the information that they are currently looking for.

[0007] Limitations of physical phone books also impede the desires and goals of advertisers. Just as customers may want to focus on a particular geographical region or a particular category, providers may also desire to limit or "focus" their listings and other advertisements. For example, a small barbershop may not be interested in trying to bring in customers more than a few miles away from the location of the barbershop. Moreover, the barbershop may not provide the range of hair care and other appearance-related services of a beauty salon, spa, or similar business. In many instances, the provider is either forced to pay for reaching an audience that the provider is not truly interested in pursuing, or the provider must forego pursuing an audience that the provider is interested in pursuing. If the provider chooses not to pay for a listing, both the provider and the publisher of the phone book are negatively impacted by the inherent limitations of the phone book.

[0008] Phone books lack a direct feedback mechanism to inform phone book publishers and their advertisers of the usage of the various categories or advertisements in the phone book. The number of people who actually view a particular listing or ad provided in the phone book can only be estimated. Similarly, the percentage of people who see a particular listing and respond to it can only be estimated. The traditional "hard copy" phone book does not include a mechanism for transmitting information back to phone book publishers and their advertisers. The inability to directly measure the effectiveness and utility of listings impedes advertisers in transmitting their message in a phone book, and limits the ability of publishers to facilitate such communications. The inability to directly measure effectiveness results in inefficiencies that are detrimental to publishers, advertisers, and customers. In many circumstances, it would be desirable for an information distribution system to definitively track the access and usage of advertisement information. If such a system were established, it would facilitate the implementation of a pricing mechanism based on one or more objective pricing formulas, including for example, charging advertisers on a "per-hit" or per transaction basis or for automatic placement within a well-defined geographic region in accordance with a robust multi-hierarchical category system.

[0009] The implementation of alternative delivery and pricing mechanisms that are precluded by limitations intrinsic to paper phone books prevent phone book publishers from more effectively tailoring listings for the mutual benefit of customers, providers, and publishers alike. For example, providing any form of preferential placement to providers who pay for placement based on objective criteria that help demonstrate effectiveness can be an effective way to encourage advertising spending by providers.

[0010] Some of the present-day limitations of paper-bound phone books are addressed by various information technology tools such as search engines and other mechanisms that utilize the World Wide Web, or similar networks (collectively "search engines"). For example, the ability to monitor Internet traffic (e.g. a "hits" from a link to a website), and the ability to frequently update information on a website can be accomplished by using various tools found in the existing art.

[0011] Unfortunately, in solving certain problems, search engines in the existing art actually exacerbate many existing limitations of paper-bound phone books while also creating entirely new problems. The marvels of information technology can literally provide a customer with information from a voluminous number of sources from across the globe. This makes tools such as search engines particularly powerful and useful for tracking down information that is hard to obtain, pertains to "niche" topics, or is otherwise related to obscure subjects. For example, search engines may be excellent tools to learn about collecting rare books, restoring 17th century art, or finding a person who is fluent in the Klingon language (a language originating from a popular science fiction show that began in the 1960's). Internet search technologies can also "succeed" in obtaining information about more mundane or common matters.

[0012] The use of search engines, however, in more common contexts all too often results in "information overflow" for the user, as well as the providing of so-called "false positives." Unlike paper-bound phone books, search engines are not limited to organizations desiring to provide potential customers with particular goods and services. Search engines are not designed to easily provide users with the ability to identify nearby businesses involved in a particular category or sub-category of goods or services. For example, a search term of "restaurant" will return listings relating to restaurant sites, restaurant reviews, and a voluminous number of "restaurant" references having nothing to do with actual restaurants that are open for business and seeking customers. For example, screenplays, poems, novels, short stories, song lyrics, and variety of other literary mediums may include the word "restaurant" because restaurants are a common part of everyday life, and often make good context for literary works. Search engines do not provide an efficient mechanism for potential customers to obtain information from providers interested in providing a particular good or service to the customer. Search engine users are effectively prevented from finding the proverbial "needle" they are looking for due to a "haystack" of irrelevant data between the user, and the result they are looking for.

[0013] Although it is true that search terms relating to geographical regions can be submitted to search engines, that functionality is not the same thing as retrieving information that is specifically organized and stored into various hierarchies of geography, categories, and potentially other relevant attributes. A search consisting of "New York" and "barbershops" will still result in a voluminous number of listings having nothing to with a barbershop open for business in New York City. This limitation is intrinsic to the nature of the Internet and the types of searches performed by conventional search engines.

[0014] Nor do search engines provide guidance to both advertisers and customers through a normalized hierarchical category structure, designed to minimize the likelihood of returning less than the desired universe of goods and services. Individuals, depending on their cultural and geographic background, may use non-similar nomenclature for the same desired good or service. For example, it is possible to use the word "lounge", "club", "tavern" or "pub", as synonyms for a "bar." In many contexts, it would be desirable for an information system to normalize user terminology into the hierarchical category structure to facilitate the true desires of the user.

[0015] Unlike phone books that are created and organized by a publisher, the Internet is not managed by any single organization. The unmanaged evolution and growth of the Internet has resulted in such a large volume of ever increasing information that precludes attempts to organize every potential search listing into a hierarchy of categories and geographical areas. It would be desirable for an online system to provide customers with the ability to locate desired goods and services using distinguishable attributes such as geographic or category based limitations, and permitting extremely refined focus in each of these areas simultaneously depending on the needs and desires of the customer.

[0016] Search engines also hamper the ability of providers to better focus their marketing and advertising efforts to potential customers. For example, some search engines prioritize listings within a search engine result the basis of a per-hit advertising fee paid for by the advertiser in accordance with a "key" term, which is mapped to the search term used by a searcher. Advertisers in such systems cannot target their audience based on geography or the category of the good or service, and the use of "key" terms based solely on word matching greatly reduces the total universe of potentially relevant hits to the detriment of all involved. It would be desirable to provide advertisers with such capabilities that do not suffer from the limitations of a "key" term search approach.

[0017] It would also be desirable for publishers or administrators of online tools to create various administrative rules that would facilitate mutually rewarding approaches by which advertisers are appropriately charged for advertising online.

[0018] For example, in a system involving advertisers competing for favorable placement on the basis of their per-hit bid amount ("bid-based approaches"), it might be desirable to take into account the overall relationship between the administrator and the advertiser. For example, if a particular advertiser has purchased numerous search listings, it might be desirable to adjust or enhance the impact of the bid amount by the particular advertiser for a particular search term. Adjustments can also be made on seniority to reward long-term sustained relationships. In some instances, a portion of the bid amount may go to purchasing a larger listing, flashy sound or animation effects, larger font, or some other enhancing attribute. In such a situation, the value of the bid amount that relates to placement could be correspondingly adjusted.

[0019] It would further be desirable to come up with additional administrative rules that take into account customer participation since the results are motivated to both anticipate and facilitate the needs and desires of individual customers.

[0020] Unfortunately, under the existing search engine art, all providers compete against each other, regardless of differences in geographic scope or the scope of the goods and services. In bid-based approaches, local providers are bidding against national providers. Providers within a specialized sub-category such as high speed digital video cameras are bidding against more general providers of photography equipment or even consumer electronics retailers. Thus, it would typically be desirable to facilitate the organization of various provider listings into "groups" based on geography, category, fee type (such as fixed fee approaches or bid-based approaches), and other distinctions. It may also be desirable for administrators to create different administrative rules for different groups. For example, it might be desirable for local advertisers to have a different minimum bid requirement and even a different minimum bid increment requirement, than a national advertiser.

[0021] As discussed above, both online search tools and the more traditional printed phone books lack useful mechanisms to enhance the ability to potential customers to find the information they are looking for, and the ability of providers to focus their marketing and advertising efforts to those potential customers most interested in their goods and services. In many respects, the advantages of online search engines affirmatively teach away from the functionality of conventional printed phone books, and the functionality of conventional paper-bound phone books affirmatively teach away from the functionality of search engines. Although there are some online phone books in the existing prior art, up until now they have typically mimicked their traditional counterparts with only a few basic advantages such as the providing of a map or driving directions to the provider. The known prior art does not disclose, much less affirmatively suggest, the existence of a system or method that can surpass the functionality of both traditional printed phone books and online search tools with respect to the mutually beneficial use and exchange of information between customers and providers to facilitate a business relationship.

SUMMARY OF THE INVENTION

[0022] The invention is a system and method for distributing information (collectively "information system" or simply the "system"). More specifically, the invention is an information system that makes it easier and more efficient for potential customers to identify potentially desirable providers of goods and services (collectively "providers") with respect to particular transactions, while at the same time, making it easier for providers to more effectively "focus" advertising to potential customers.

[0023] In some embodiments, information requests and responses distinguish between various category attributes that are associated with some or all of the various listings. Hierarchies of categories can be stored and processed by the system. In certain preferred embodiments the category hierarchy is fully "normalized," allowing the system to make finely tuned distinctions based on subtle attribute differences. The use of predefined data hierarchies can provide the best possible universe of results and minimizing the loss of relevant results based merely on differences in nomenclature. Mechanisms may be provided to relate like "terms" so that the correct category is easily located within the overall structure when a non-normalized term is used.

[0024] In certain disclosed embodiments, information requests and responses distinguish between various geography attributes that are associated with some or all of the various listings. Hierarchies of geographical regions can be stored and processed by the system.

[0025] In some embodiments, there is more than one type of fee that can be associated with the listings included in a response to an information request. For example, a response may include some listings paid for on a fixed fee basis, while also including listings paid for on a fixed or variable per-hit basis. Hierarchies of fee types can be stored and processed by the system.

[0026] In many embodiments of the present invention, a single response can include more than one group of listings. Listing groups can be dynamically defined by the interactions between listing attributes set forth by the provider, the request attributes set forth by the customer, and/or the administrative rules implemented by the administrator for the system. Each group in a response can have its own methodology for ordering the listings within the group. The listings need not be displayed in a manner that is determined in a sort by group. For example, three listings prioritized on the basis of bid amounts can be followed by two listings prioritized on a fixed fee basis, with those two fixed fee listings then being followed by the next three listings prioritized on the basis of bid amounts.

[0027] In certain embodiments that prioritize listing placements based in part on bid amounts associated with the various listings, bid amounts are merely one factor used to calculate the priority metric for prioritizing listing placements ("bid-influenced approaches"). For example, position modifiers based on loyalty, other relationship attributes and/or fixed fees can cause a particular listing to possess a higher priority metric even though other listings are associated with a larger per-hit or "click through" fee. Similarly, if part of the bid amount is attributable to a display fee for non-priority related factors such as listing length, font size, colors, graphics, or other factors, then the priority metric can be reduced by the value of the display fee. Various position adjustment factors can be used to influence the priority metric used to prioritize the placements of listings within a particular group.

[0028] The relationship between users and advertisers can also impact the priority metrics associated with various listings. For example, the popularity of a particular listing can enhance the priority metric for that particular listing so that the priority metric for that particularly listing surpasses the priority metrics associated with listings involving higher per-hit fees. In order to facilitate the ability of users to better "focus" their efforts on using the system, the system can also provide additional flexibility with respect to the submission of requests. For example, a user request can be augmented in accordance with the particular user's history with the system, a user profile, or other forms of "intelligence" utilized by the system.

[0029] In some bid-influenced approaches, different groups will be associated with different minimum bid values necessary to join the particular group. Different groups may also be associated with different minimum bid increments for increasing those bid amounts.

[0030] In some bid-influenced approaches, bid values for a particular group are organized into various tiers, and listings belonging to the same bid tier are ordered randomly each time a customer invokes a response including that particular group.

[0031] The system can be implemented in such a way as to maximize the ability of the system to distinguish between different types of user and advertiser activities. Different user activities can result in different advertising fees being charged to the advertiser. Dissimilar user activities can be classified as different types of "hits" for the purpose of charging advertisers. Dissimilar types of "hits" can involve different "per hit" fees. As one example within the scope of the present invention, the fact that a particular listing appears within a result can trigger a particular charge to the advertiser. As another example, invoking of the web site through the listing can result in a different charge. In yet a further example, the sending of an e-mail to the advertiser through the system can result in a charge that is distinct from the previous two charges. In some embodiments of the system, the per-hit fee associated with a particular listing can be increased or decreased in accordance with the popularity of the listing. For example, in a step function approach, the system can be configured so that after 500 hits during a particular period of time, the per-hit fee associated with the particular listing is increased or decreased in accordance with some value, ratio, or factor. At the same time that the per-hit fee is adjusted, however, it does not necessarily mean that its location within the listing is altered.

[0032] The present invention will be more fully understood upon reading the following detailed description in conjunction with the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0033] Figure 1 is a block diagram illustrating one example of an information distribution system, including the components used to support the performance of the system, the types of information processed by the system, and some of the ways in which users and advertisers interact with the system.

[0034] Figure 2 is a block diagram illustrating one example of the administrative aspects of an information distribution system, including the components used by the administrator to support the performance of the system, the types of information processed by administrators of the system, and some of the ways in which administrator interacts with the system.

[0035] Figure 3a is a hierarchy diagram illustrating one example of a category hierarchy that is three-levels deep.

[0036] Figure 3b is a hierarchy diagram illustrating a specific example of the types of categories that can be incorporated into the system.

[0037] Figure 4a is a hierarchy diagram illustrating one example of a geography hierarchy that is three levels deep.

[0038] Figure 4b is a hierarchy diagram illustrating a geography hierarchy that includes national, regional/state, and local levels.

[0039] Figure 4c is a partial hierarchy diagram illustrating various service areas that can be associated with a national level geographic region.

[0040] Figure 4d is a partial hierarchy diagram illustrating various service areas that can be associated with a regional/state geographic region.

[0041] Figure 4e is a partial hierarchy diagram illustrating various service areas that can be associated with a local geographic region.

[0042] Figure 5 is a hierarchy diagram illustrating one example of a fee type hierarchy (or simply “fee hierarchy”).

[0043] Figure 6a is a relationship diagram illustrating one example of how attributes associated with a group hierarchy are a function of attributes associated with category, geography, and fee hierarchies.

[0044] Figure 6b is a hierarchy diagram illustrating one example of a group hierarchy.

[0045] Figure 6c is an input/output diagram illustrating an example of request attributes, listing attributes, and administrative rules being used to define the groups to be included in the response.

[0046] Figure 6d is a process flow diagram illustrating the submission of a request to a database structure, and inclusion of various listings in the response.

[0047] Figure 7a is a block diagram illustrating one example of a subsystem-level view of the system that includes a request subsystem and a response subsystem.

[0048] Figure 7b is a block diagram illustrating one example of a subsystem-level view of the system that includes a request subsystem, a result subsystem, and a response subsystem.

[0049] Figure 7c is a block diagram illustrating one example of a subsystem-level view of the system that includes a request subsystem, a result subsystem, a response subsystem, and an administrative subsystem.

[0050] Figure 8a is a block diagram illustrating one example of a subsystem-level view of the system that includes a user subsystem and a sponsor subsystem.

[0051] Figure 8b is a block diagram illustrating one example of a subsystem-level view of the system that includes a user subsystem, a sponsor subsystem, and an administrator subsystem.

[0052] Figure 9a is a block diagram illustrating one example of a subsystem-level view of the system that includes an interface subsystem and a listing subsystem.

[0053] Figure 9b is a block diagram illustrating one example of a subsystem-level view of the system that includes an interface subsystem, a listing subsystem, and a focus subsystem.

[0054] Figure 10 is a flow chart diagram illustrating one example of a process that can be performed by an administrator and the system.

[0055] Figure 11 is a flow chart diagram illustrating one example of a process that can be performed by an advertiser that submits a listing to the system.

[0056] Figure 12 is a flow chart diagram illustrating one example of a process that can be performed by a user of the system.

[0057] Figure 13 is a block diagram illustrating one example of a response displayed on a screen in accordance with one embodiment of the placement heuristic after the submission of a request using city and zip code information.

[0058] Figure 14 is a block diagram illustrating one example of the response displayed on a continuation screen in accordance with one embodiment of the placement heuristic after the submission of a request using city and zip code information and subsequent scrolling by a user for more local listings.

[0059] Figure 15 is a block diagram illustrating one example of the second screen of response displayed on a continuation screen in accordance with one embodiments of the placement heuristic after the submission of a request using city and zip code information and subsequent scrolling by a user for more national listings.

[0060] Figure 16 is a block diagram illustrating one example of a response displayed on a screen in accordance with one embodiment of the placement heuristic after the submission of a request using state information.

[0061] Figure 17 is a block diagram illustrating one example of a response displayed on a screen in accordance with one embodiment of the placement heuristic after the submission of a request using a business name or phone number.

[0062] Figure 18 is a block diagram illustrating one example of a response displayed on a screen in accordance with one embodiment of the placement heuristic after the submission of a request that includes a blank value for a geography selection.

[0063] Figure 19 is a block diagram illustrating one example of a bid-based approach where the listings are not displayed in order of bid amount.

[0064] Figure 20 is a screen print illustrating an example of a request submission web page that includes various high-level categories.

[0065] Figure 21 is a screen print illustrating an example of a request submission web page with a text string corresponding to a category selection entered by a user.

[0066] Figure 22 is a screen print illustrating an example of a request submission web page with text strings corresponding to a category selection and a geography selection entered by a user.

[0067] Figure 23 is a screen print illustrating an example of a request submission web page displaying more detailed sub-categories associated with the higher furniture category.

[0068] Figure 24 is a screen print illustrating an example of a web page displaying listings associated with the sub-category of “room accessories.”

[0069] Figure 25a is a top portion of a screen print illustrating an example of a web page displaying listings associated with the antiques sub-category.

[0070] Figure 25b is a bottom portion of a screen print illustrating an example of a web page displaying listings associated with the antiques sub-category.

[0071] Figure 26a is a top portion of a screen print illustrating an example of a web page displaying listings associated with the furniture category and a local geography.

[0072] Figure 26b is a bottom portion of a screen print illustrating an example of a web page displaying listings associated with the furniture category and a local geography.

[0073] Figure 27a is a top portion of a screen print illustrating an example of a web page displaying listings associated with the furniture category and a local geography.

[0074] Figure 27b is a bottom portion of a screen print illustrating an example of a web page displaying listings associated with the furniture category and a local geography.

[0075] Figure 28a is a top portion of a screen print illustrating an example of a web page displaying listings associated with the furniture category and a local geography, including two listings that have selected for the purposes of a "compare" function.

[0076] Figure 28b is a bottom portion of a screen print illustrating an example of a web page displaying listings associated with the furniture category and a local geography, including two listings that have selected for the purposes of a "compare" function.

[0077] Figure 29a is a top portion of a screen print illustrating an example of a web page displaying listings associated with the furniture category and a local geography.

[0078] Figure 29b is a bottom portion of a screen print illustrating an example of a web page displaying listings associated with the furniture category and a local geography.

[0079] Figure 30a is a top portion of a screen print illustrating an example of a web page displaying listings associated with the furniture category and a local geography.

[0080] Figure 30b is a bottom portion of a screen print illustrating an example of a web page displaying listings associated with the furniture category and a local geography.

[0081] Figure 31a is a top portion of a screen print illustrating an example of a web page displaying listings associated with the "living room" sub-category and a local geography.

[0082] Figure 31b is a bottom portion of a screen print illustrating an example of a web page displaying listings associated with the "living room" sub-category and a local geography.

[0083] Figure 32 is a screen print illustrating an example of an advertiser contact information web page.

[0084] Figure 33 is a screen print illustrating an example of a bid entry web page for use by advertisers.

[0085] Figure 34 is a screen print illustrating an example of a monthly report web page accessible by advertisers.

[0086] Figure 35a is a top portion of a screen print illustrating an example of a detailed view of a listing.

[0087] Figure 35b is a bottom portion of a screen print illustrating an example of a detailed view of a listing.

[0088] Figure 36 is a screen print illustrating an example of a "compare" feature.

[0089] Figure 37a is a bottom portion of a screen print illustrating an example of a "directions" feature.

[0090] Figure 37b is a top portion of a screen print illustrating an example of a "directions" feature.

[0091] Figure 38 is a screen print illustrating an example of an "e-mail" feature.

DETAILED DESCRIPTION

I. OVERVIEW

[0092] The invention is a system or method for distributing or disbursing information (collectively an "information system" or simply the "system"). The system "focuses" information exchanged between potential buyers and sellers. In contrast to paper-bound phone books or even online search engines, the system achieves highly focused exchanges between buyers and sellers by adapting itself more deeply to the specific goals of both buyers and sellers.

[0093] Buyers can use the system to identify potential sources for goods and services that are of particular interest to the potential buyer. Buyers can focus their access to listings of seller information by using the system to distinguish, order, and potentially exclude listings that are not associated with the desired attributes, such as a particular geography selection of the seller or a category selection relating to the goods and services offered by the seller. In contrast to conventional search engines and other online search tools, the use of geographical and categorical attributes is not limited to their inclusion as part of generally applicable search terms used to perform text-based searching. Instead, seller listings can be organized into hierarchies of geography, category, and other listing attributes in a highly normalized fashion to enhance the ability of a buyer make highly targeted or focused requests. The highly focused nature on the request allows the system to provide the potential buyer with a similarly focused response. The system can be configured to limit, order, or otherwise prioritize the information viewed by the buyer on the basis of the desired attributes identified by the buyer.

[0094] Sellers benefit from focusing their advertising to potential buyers who are in fact, interested in the goods, services, and other offerings that can be provided by the seller. The benefits to sellers allow an administrator of the system to charge more money for advertisements because the system is a more effective and uses a less scattered approach than other advertisement mechanisms.

[0095] Administrators configure the processing performed by the system by the creation and updating of administrative rules that determine which listings are selected by the system in response to a particular request, and how those listings are ordered and otherwise displayed in the response sent back the originator of the request. The administrative rules can determine the fees of certain advertisements, and such fees can include fixed-fees as well as various per-hit fees. The order in which listings are displayed in a particular response to a particular request can be influenced by numerous variables or combinations thereof, including a group affiliation, a geography attribute, a category attribute, a priority metric, a fixed-fee, a per-hit fee, a position adjustment factor, and an enhanced display fee. In many embodiments, the ordering and positioning of lists are not dependent on any single input variable. In such embodiments, no variable can be said to be independent of any other component and such independence would work against the flexibility and "focused" processing of the system.

[0096] In a preferred embodiment, advertiser "listings" are organized into various hierarchies, such as a geography hierarchy, a category hierarchy, a fee-type hierarchy, or other attribute hierarchies. The requests for information submitted by users can then invoke the system to dynamically create one or more "groups" of listings using the various hierarchical distinctions, user selections, and/or information related to the user.

II. INTRODUCTION OF ELEMENTS

[0097] Figure 1 is a block diagram illustrating one example of an information distribution system 100, including the components used to support the performance of the system 100, the types of information processed by the system 100, and some of the ways in which users 130 and advertisers 102 interact with the system 100. Different embodiments of the system 100 can involve a wide variety of different components, information types, and interactions.

A. Advertiser

[0098] An advertiser 102 is any individual or organization that provides a listing 104 of information for inclusion in the system 100. Advertisers 102 can interact with the system 100 through various individuals affiliated with the advertiser 102, such as employees, contractors, or agents. In some embodiments of the system 100, a third party is responsible for interfacing with the system 100 on behalf of the advertiser 102. For example, a marketing agent could submit information for inclusion in the system 100 on behalf of the advertiser 102. Such a submission could even be made without the knowledge of the advertiser 102 if the marketing agent is authorized to do so. Sources of advertiser information can include the local Telephone Company, data warehouse companies, activities of the provider's sales force, and from the advertiser 102 directly. Advertisers 102 can also interact with the system 100 through various information technology mechanisms, such as software applications that are configured or adapted to interface with the system 100. Such interfacing advertiser applications can interact with the system 100 in both an automated and manual manner, engaging in batch, real-time, schedule, and ad-hoc interactions.

[0099] In many embodiments of the system 100, the advertiser 102 can also be referred to as a seller, supplier, provider, or sponsor because advertisers 102 are typically sellers of various goods, services and/or other offerings (collectively "products"). However, advertisers 102 can also include individuals or organizations desiring to communicate with users to initiate future interactions where no good or service is involved. For example, churches, political parties, employers community action groups, and other organizations seeking new members, volunteers, or employers could be "advertisers" 102 using the system 100. An advertiser 102 can be any entity seeking to make its existence known to a variety of potential customers, users, or other potentially interested persons or organizations (collectively "users" 130) through one or more listings 104 residing on the system 100.

[00100] As indicated by the arrow originating from the advertiser 102 and pointing toward the listing 104, advertisers 102 are responsible for providing information that comprises the content of the listings 104 to the system 100. In some embodiments of the system, advertisers 102 may invoke the assistance of other entities, such as marketing consultants or the administrators of the system 100, to physically create the listing. However, the advertiser 102 should ultimately be responsible for the contents of their listings 104.

[00101] Although only one advertiser 102 is displayed in the Figure, it is anticipated that millions of listings 104 could be submitted by millions of advertisers 102 for inclusion in the system 100. The capacity of the system 100 is only limited by the information technology architecture that supports the functionality of the system 100.

1. Listings and Listing Attributes

[00102] A listing 104 is the mechanism by which a user 130 learns about advertisers 102. Even within a single embodiment of the system 100, listings 104 can include a wide variety of different types of information in a wide variety of different formats. Listings 104 can include a wide variety of text, fonts, colors, graphics, animation, and sounds to communicate information about the advertiser 102 and the products of the advertiser 102. Listings 104 could even incorporate different smell, touch, and taste sensations as those technologies are developed and made commercially available through computer networks. Below is one example of a listing 104 that can be incorporated into the system 100:

Verizon Online DSL
UltraFast Internet Access. The Power is Yours.
(877) 270-2375 (toll-free) Res.
(888) 649-9500 (toll-free) Bus.

[00103] As indicated by the bracket extending from the listing 104, each listing 104 can possesses certain characteristics or attributes which are referred to as listing attributes 106. Listing attributes 106 can be set by the advertiser 102, and they provide the advertiser 102 with the flexibility to target or focus their listing 104 towards users 130 with particular interests. Although listing attributes 106 can vary widely from listing 104 to listing 104 (even within the context of a single sequence of listings 104 within a single embodiment of the system 100), in many embodiments of the system 100, there are similarities with respect to the particular types of information used by the system 100 as listing attributes 106 to describe listings 104. In many embodiments, one or more of the listing attributes 106 can be associated with "blank" or "null" values.

a. Geography Attributes

[00104] As indicated by the bracket extending from the listing attributes 106 and encompassing a geography attribute 108, one type of characteristic or listing attribute 106 that can be helpful to associate with various listings 104 is the characteristic of geography. One or more geography attributes 108 can be used by the system 100 to associate a particular listing 104 with a particular geographic region or a particular geographic scope. Geography attributes 108 can refer to a particular geographic region (such as New York City, the state of Illinois, the nation of Ireland, etc.), as well as a geographical "level" within a geographic hierarchy (such as a city, state, country, etc.). Any information relating to the location of the advertiser 102 can be a geography attribute 108. Examples of geography attributes 108 can include, but are not limited to, a: street address, city, county, state, zip code, country, continent, longitude, latitude, elevation, phone number, fax number, terrain (such as mountainous, forest, jungle, etc.) or any other indicia of geographical information that could be of interest to a user 130 in focusing a request 132. Different embodiments of the system 100 can involve different combinations of required and optional geography attributes 108. For example, in one embodiment of the system 100, each listing 104 could be required to be associated with some type of latitude and longitude values for distance determinations, point of interest data, and other mapping purposes. In other embodiments, the system 100 may refrain from requiring any particular type of geography attribute 108.

[00105] Geography attributes 108 and their impact on the processing performed by the system 100, are described in greater detail below.

b. Category Attributes

[00106] As indicated by the bracket extending from the listing attributes 106 and encompassing a category attribute 110, one type of characteristic or listing attribute 106 that can be helpful to associate with various listings 104 is a category description of the subject matter offered by the advertisers 102. Such a category description can be referred to as a category attribute 110. One or more category attributes 110 can be used by the system 100 to associate a particular listing 104 with a good, service, or other type of offering (collectively "offering"). In many embodiments of the system 100, category attributes 110 have a hierarchical relationship with each other. For example a digital video camera is a video camera, a camera, and a consumer electronics device all at the same time.

[00107] Category attributes 110 can include any attribute or information about the offering of an advertiser that would be potentially be of interest or use to the user 130 seeking to obtain information in a focused manner.

[00108] Category attributes 110 and their impact on the processing performed by the system 100, are described in greater detail below.

c. Fee Type Attribut s

[00109] As indicated by the bracket extending from the listing attributes 106 and encompassing a fee type attribute 112, one type of characteristic or listing attribute 106 that can be helpful to associate with various listings is a "fee type" attribute 112, or simply a "type" attribute 112. The fee arrangement agreed to by the advertiser 102 determines the "type" of advertising product purchased by the advertiser 102.

[00110] Fee type attributes 112 relate to financial characteristics of the listing 104 with respect to processing performed by the system 100. For example, some listings 104 can involve charging the advertiser 102 each time a particular listing is presented in a response 144 to a request 132. Such an arrangement can be referred to as a per-hit fee amount 113 where a per-hit payment offered by the advertiser is deducted with each "hit" of the listing. A per-hit fee amount 113 can also involve a charge that is invoked only if the user 130 actually "clicks" on the listing to obtain more information about listing or activates a link on the listing to communicate with the advertiser 102 through the advertiser's 102 website, or some other means. The per-hit fee amount 113, sometimes referred to as a "per-click" fee amount, can also be referred to as a bid amount because the financial value of the per-hit fee amount 113 will be used by the system 100 (but never as the sole factor) in calculating a priority metric for the purposes of awarding better listing placement to advertisers 102 that are generally more valued by an administrator of the system 100. The role of "administrator" is discussed in detail below.

[00111] Another example of a type attribute 112 is a fixed-fee amount 111. In contrast to a per-hit fee amount 113, listings 104 of the fixed-fee type 111 do not result in advertisers 102 being charged on a per-hit basis. Instead, fixed-fee type listings 104 result in a set subscription charge for a period of time. Moreover, it is further possible to combine aspects of fee amounts 111 and 113 into a single listing 104. For example, a fixed fee amount 111 may include an enhanced display fee 163 based on a per-hit fee amount 113.

[00112] Just as geography attributes 108 and category attributes 110 can be organized into a hierarchy of attributes, fee types 112 can also be organized into a hierarchy of types. That hierarchy is discussed in greater detail below.

[00113] The system 100 can be flexibly configured to support a wide range of different "hit" based functionality. The system 100 can support many different kinds of "hits." In a first example, each time a listing 104 is included in a response 144 could be considered a "view hit." In a second example, each time a listing 104 results in a sending of an e-mail through the system 100 could be considered an "e-mail hit." In a third example, each time a user 130 invokes an automated calling feature could be referred to as a "call hit." In a further example, each time a user 130 invokes a web link to an advertiser's 102 web site through a listing 104 could be considered a "web hit." In another example, each time a user invokes an information request to a particular listing 104 could be considered an "information" hit. In a final illustrative example, each time a user 130 invokes a map relating to a particular listing 104 could be considered a "map hit."

[00114] In some embodiments of the system 100, phone number information can be hidden within a link identified as a "phone number." The system 100 can be configured to reveal the phone number when a certain user 130 activity occurs, such as moving the mouse over the link. In such a configuration, the movement of the mouse over the link can be considered a "mouse hit."

[00115] Thus, every potential interaction between the user 130 and the listing 104 can potentially constitute a particular type of "hit" that is distinguished by the system 100. A single embodiment of the system 100 can include a wide variety of different kinds of hits. Each type of hit can result in a different per-hit fee 113. For example, an advertiser 102 might be willing to pay more for a map hit than a view hit.

2. Advertiser Access Devices

[00116] An advertiser 102 interacts with the system 100 through one or more advertiser access devices 114. In some embodiments of the system 100, all of the advertiser's 102 interactions with the system 100 are performed without human intervention on the part of the administrator of the system 100. In such embodiments, listings 104 and all listing attributes 106 are provided to the system 100 through the advertiser access device 114. In other embodiments, certain activities, such as the updating of the listing 104 requires human intervention, while other activities such as increasing a per-hit fee amount 113 or viewing a utilization report, is performed online. The system 100 can also be implemented in such a way as to require that all advertiser 102 interactions occur through human intervention with administrator personnel, but such limitations can prove to be unnecessarily restrictive.

[00117] A single advertiser 102 can interact with the system 100 through a wide variety of different advertiser access devices 114. The capabilities and configurations of the particular advertiser access device 114 will depend on the particular function being performed. For example, a cell phone with Internet access may be an acceptable advertiser access device 114 to view a report, while being unsuitable for the creation and submission of a graphic to be included in an updated listing 104.

[00118] Any device capable of providing the advertiser 102 with access to the functionality of the system 100 can function as an advertiser access device 114. Advertiser access devices 114 are typically some type of client device capable of interacting with a computer network, such as the Internet. Examples of advertiser access devices 114 include: desktop computers, laptop computers, mainframe computers, mini-computers, cell phones, pagers, personal digital assistants ("PDAs"), or other devices (collectively "computer access devices"). In some circumstances, access devices can also be non-computer devices, such as fax machines, standard telephones with computerized answering options, paper copies of correspondence, and other communication mechanisms. Non-computerized access devices typically require additional human intervention for information to be loaded onto the system 100.

3. Advertiser Interfaces

[00119] As indicated by an arrow pointing from the advertiser access device 114 to an advertiser interface 116, and an arrow from the advertiser interface 116 to a server 118, the advertiser interface 116 is the mechanism by which the advertiser 102 (through the advertiser access device 114) interacts with the system 100.

[00120] In many embodiments of the system 100, the advertiser interface 116 is a web page accessed by an Internet browser residing within the advertiser access device 114. In other embodiments, the interface 116 may be a wide variety of user interfaces known in the art, such as graphical user interfaces ("GUI"), text-based interfaces, or any other interface capable of being utilized to transmit listing attributes 106 to the system 100, or for receiving reports from the system 100.

B. Information Technology Infrastructure

[00121] The system 100 can be implemented in wide variety of different ways. Any configuration of components capable of storing and then accessing information can be used by the system 100 to perform the functionality of the system 100. Listing attributes 106 provided by advertisers 102 must be stored in some way by the system 100, so that the system 100 can provide users 130 with the information that they desire.

1. Servers

[00122] As indicated by the arrow disposed between advertiser interface 116 and a server 118, the server 118 is used to receive listing attributes 106 from advertisers 102. The server 118 can be any device or configuration of devices capable of receiving information from one or more interfaces, and housing a set of instructions 120 needed to provide the functionality of the system 100.

[00123] In many embodiments, the server 118 is one or more web servers, with the system 100 being provided to users 130 without any charge, through the use of an Internet connection.

2. Instructions

[00124] As indicated by the two-way arrow disposed between the server 118 and a set of instructions 120, and from the instructions 120 to a database structure 126, the instructions 120 are the mechanism within the server 118 that interact with the storage of information by the system 100,

[00125] Any mechanism capable of supporting the logic of the system 100 can be the instructions 120. In many embodiments, the instructions 120 are the various applications, computer programs, and associated files used to support the logic of the system 100 necessary for the functioning of the system 100.

[00126] In many embodiments, the instructions 120 will be written in an object-oriented language that is platform independent, such as the JAVA® programming language.

3. Administrative Rules

[00127] In supporting the functionality of the system 100, the instructions 120 incorporate various administrative rules 122 that are configured by an administrator of the system 100 (the role of the "administrator" is discussed below). The administrative rules 122, which are discussed in greater detail below, include the particular hierarchies incorporated into the system, and different ways for grouping various listings 104 to meet the needs of advertisers 102 and users 130. For example, the administrative rules 122 can define the particular sub-categories that are associated with the "restaurant" category.

4. Database Structures

[00128] As indicated by the two-way arrow disposed between the instructions 120 and a database structure 126 and the bracket originating from the database structure 126 and encompassing a variety of listing records 128, the database structure 126 is the mechanism by which the system 100 accesses the listing records 128.

[00129] In many embodiments, the database structure 126 is one or more relational databases. In some alternative embodiments, object-oriented or hierarchical databases can be used. Other methods for storing information, such as arrays, pointers, flat files, and other data storage techniques can be incorporated into the system 100 as the "database structure" 126.

5. Listing Records

[00130] The listings 104 and listing attributes 106 provided to the system 100 by the advertiser 102 are stored, updated, processed, and accessed in the form of a variety of listing records 128 that reside within the database structure 126. At discussed above, the contents of listing 104 can vary widely, and thus the contents of the listing records 128 can also vary widely.

[00131] As illustrated by the bracket originating from the listing records 128 and encompassing a variety of detailed views 127 and summary views 129, each listing record 128 may include both a detailed view 127 and a summary view 129. However, some listing records 128 may only be associated with a detailed view 127 while other listing records 128 may only be associated with a summary view 129. A properly configured database structure 126 should be able to incorporate the data fields necessary for both types of views. Alternative embodiments of the system 100 may include additional potential views that can be associated with the various listing records 128.

[00132] In a typical embodiment of the system 100, the summary view 129 of a listing record 128 is displayed when the listing record 128 is displayed in a list of listings 104, and the detailed view 127 of a listing record 128 is displayed when only one or two listings 104 is actively viewable by the user 130.

[00133] Detailed views 127 can include potentially all of the information in the listing record 126, while summary views 129 are typically configured to only present the type of information that would be most important to the user 130 in the initial viewing of the response 144 such as name and a geographical attribute. Detailed views 127 can include information such as: an operating hours attribute, a historical attribute (including an established date), a method of payment attribute, a brand attribute, an e-mail address attribute, a web site attribute, an address attribute, a phone number attribute, and a fax number attribute.

C. Users

[00134] A user 130 is any person, organization, or other entity that uses the system 100 to obtain information about advertiser 102. Users 130 can interact with the system 100 through various individuals affiliated with the user 120, such as employees, contractors, or agents. Users 130 can also interact with the system 100 through various information technology mechanisms, such as software applications that are configured or adapted to interface with the system 100. Such interfacing advertiser applications can interact with the system 100 in both an automated and manual manner, engaging in batch, real-time, schedule, and ad-hoc interactions.

[00135] In many embodiments of the system 100, the user 130 can also be referred to as a buyer, a purchaser, a requestor, a searcher, or a consumer. Users 130 are typically potential purchasers of various goods, services, or other offerings (collectively "products"). However, users 130 can also include individuals or organizations desiring to communicate with "advertisers" 102 to pursue future interactions. For example, users 130 could be potentially new members for churches, political parties, community action groups, employers, and other organizations seeking new members and volunteers. A user 130 can be any entity seeking to obtain information about the existence of another entity (the advertiser 102) through one or more listings 104 residing on the system 100.

[00136] As indicated by the arrow originating from the advertiser 130 and pointing to a request 132, users 130 create requests 132 and submit them to the system 100.

[00137] Although only one user 130 is displayed in the Figure, it is anticipated that millions of different users 130 could submit requests 132 and receive responses 144 using the system 100. The capacity of the system 100 is only limited by the information technology architecture that supports the functionality of the system 100.

1. Requests and Request Attributes

[00138] Requests 132 are invocations by users 130 to obtain information. The purpose of the system 100 is to respond to requests 132. In some embodiments, requests 132 can be stored by the system 100 in building a profile for various users 130. The policy behind such a practice would be that users 130 are likely to have reoccurring interests that they would prefer the system 100 to maintain. In other embodiments, users 130 can save particular requests 132, but such activities require the affirmative decision of the user 130. Some embodiments of the system 100 may include both user profiles and the ability to save requests 132.

[00139] As indicated by the bracket extending from the request and encompassing a variety of request attributes 134, the requests 132 received by the system 100 can be said to possess or be associated with, various request attributes 134. Request attributes 134 can be set by the user 130 in accordance with the parameters set by the administrative rules 122 of the system 100. Request attributes 134 provide users 130 with the flexibility to target or focus their requests to listings 104 likely to be of interest to the user 130.

[00140] Although request attributes 134 can vary widely from request 132 to request 132 (even within the context of a single user 130 within a single embodiment of the system 100), in many embodiments of the system 100, there are similarities with respect to the particular types of information used by the system 100 as request attributes 134 to describe or define requests 132. Request attributes 134 can be described as various selections made by users 130. Two important types of request attributes 134 typically include a geography selection 136 and a category selection 138. In many embodiments, request attributes 134 can include one or more "blank" or "null" values.

a. Geography Selections

[00141] As indicated by the bracket extending from the request attributes 134 and encompassing the geography selection 136, one type of characteristic or request attribute 134 that can be helpful to focus requests 132 is the characteristic of geography.

[00142] Geography selections 136 related to specific geographic regions that are of interest to the user 130. Examples of geography selections can include, but are not limited to, a: street address, city, county, state, zip code, country, continent, longitude, latitude, elevation, phone number, fax number, terrain (such as mountainous, forest, jungle, etc.) or any other indicia of geographical information that could be of interest to a user 130 in focusing a request 132 for information. In some embodiments, a business name and/or phone number are types of geographic selections 136.

[00143] In a preferred embodiment, geography selections 136 selected by the user 130 correspond to a particular identification or location within a geography hierarchy defined by the administrative rules 122 that are described in greater detail below. In other embodiments, geography selections 136 correspond to geography attributes 108 associated with the various listings 104 stored within the system 100.

[00144] Geography selections 136 can be made by users 130 through the typing of text into an editable field, the checking of boxes or radio buttons on a screen, the use of a mouse to select the desired geography selection from a list box, pull-down screen or data window, using a light pen or other device to select the desired geographical region on a map, or through any other mechanism that is convenient for users 130, and capable of capturing the desired geography selections 136. A single request 132 can include multiple geography selections 136. For example, city and zip code information can be supplied as part of the same request 132.

[00145] Geography selections 136 and their impact on the processing performed by the system 100, are described in greater detail below.

b. Category Selections

[00146] In a preferred embodiment, category selections 138 by the user 130 correspond to a particular location within a category hierarchy defined by the administrative rules 122 that are described in greater detail below. In such embodiments, a directory structure embodying the category hierarchy can be used by users 130 to submit their request 132. In other embodiments, category selections 138 are captured through text fields or other forms of user input that is incorporated into the request 132. In some embodiment, the system 100 can use a dictionary of synonyms and various synonym heuristics and metrics to better match the entries made by the user and the category attributes 110 associated with the various listing records 128 stored within the system 100. In some embodiments, a business name and/or business phone number are types of category selections 138.

[00147] One or more category selections 138 can be used by the system 100 to select listing records 128 from the database structure 126. For example, after selecting the category of "consumer electronics" a user 130 may then decide that what they are interested in is really "personal computers." Category selections 138 can include any attribute or information about the offering of an advertiser 102 that would be potentially be of interest or use to the user 130 seeking to obtain information in a focused manner. In some embodiments, multiple category selections 138 can be joined in the same request 132. For example, a user 130 might want to investigate movie theaters and nearby restaurants in tandem. Another example of a multiple category selection 138 within the same request 132 would be the inclusion of both "bars" and "restaurants" in trying to pick a good meeting place for friendly gathering.

[00148] Category selections 138 and their impact on the processing performed by the system 100, are described in greater detail below.

c. Enhanced Requests

[00149] In order to facilitate the needs and goals of users 130, the requests 132 submitted by users 130 can be enhanced in various respects.

i. Supplemental Requests

[00150] Some requests 132 are enhanced by follow-up activities by the user 130. These enhanced requests 132 can be referred to as supplemental requests. An example of a supplemental request 132 is a follow-up screen that asks the user 130 for additional information. For example, if a particular company provides a wide variety of vastly different products, at different geographic locations, entering in a business name as part of the request 132 may result in the system 100 prompting the user 130 for additional information about what product the user 130 is looking for or for the appropriate geographical location. In one preferred embodiment, the category attributes 110 associated with the particular company are displayed to facilitate refinement of the request.

[00151] In some embodiments of the system 100, the response 144 is provided to the user 130 while simultaneously providing the user 130 with the means to supplement their request 132.

ii. Augmented Requests

[00152] Requests 132 can also be enhanced in an automated fashion by the system 100.

[00153] In one exemplary approach, the request 132 is adjusted by system 100 because of potential undesirable consequences to accepting the request in an unaltered form. For instance, if the request 132 submitted by the user 130 is somehow incomplete, in error, or otherwise ambiguous, it can be augmented or clarified by the system 100 in accordance with pre-defined heuristics. One illustration of an augmented request 132 is a request containing spelling errors that is corrected by the system 100. Another illustration of an augmented request 132 is the accessing of a lexicon of synonyms by the system 100 so that a request 132 for “bars” catches listings 104 for “nightclubs” and “taverns.” A further illustration of an augmented request adjusted by the system is a matching of a generic term with brand names applicable to the term.

[00154] Requests 132 can also be augmented with respect to geography selections 136. For example, the network location (such as an IP address) of the user access device 140 can be used to obtain geography information that is not provided by the user 130.

[00155] In another exemplary approach, the prior history of interactions ("user history") between the user 130 and the system 100, a user profile, or other forms of system "intelligence" about the desires of the user 130 can be used to augment the requests 132 made by the user 130. In the example above relating to a business offering vastly different products, the system 100 might default to a particular product that has been of interest in the past to the user 130.

[00156] In many embodiments, the user 130 is asked to confirm the assumptions, presumptions, and defaults involved in augmented requests 132.

2. User Access Devices

[00157] A user access device 140 is the device through which the user 130 interacts with the system 100. As indicated by the arrows pointing to and away from the user access device 140, the user access device 140 is the means by which requests 132 are submitted to the system 100, and the means by which a response 144 is received by the submitting user 130.

[00158] Users 130 can interact with the system 100 through a wide variety of different user access devices 140. Any device capable of providing the user 130 with the ability to submit requests 132 to the system 100 and receive responses 144 from the system 100 can function as a user access device 140. User access devices 140 are typically some type of client device capable of interacting with a computer network, such as the Internet. Examples of user access devices 140 include: desktop computers, laptop computers, mainframe computers, mini-computers, cell phones, pagers, personal digital assistants ("PDAs"), or other devices (collectively "computer access devices"). In some circumstances, access devices can also be non-computer devices, such as fax machines, standard telephones, telephones with computerized answering options, and other communication mechanisms. Non-computerized access devices typically require additional human intervention for information to be loaded onto the system 100 or to receive responses 144 provided by the system 100.

3. User Interfaces

[00159] As indicated by an arrow pointing from the user access device 140 to and from a user interface 142, the arrow pointing from the user interface

142 to the server 118, and the arrow from the response 144 to the user interface 142, the user interface 142 is the interface by which the user 130 interacts with the system 100. Requests 132 are submitted to the system 100 through the user interface 142, and responses 144 are sent by the system 100 to the user 130 through the user interface 142.

[00160] In many embodiments of the system 100, the user interface 142 is a web page accessed by an Internet browser residing within the user access device 140. In other embodiments, the user interface 142 may be a wide variety of user interfaces known in the art, such as graphical user interfaces ("GUI"), text-based interfaces, or any other interface capable of being utilized to transmit requests 132 to the system 100 and receive responses 144 from the system 100.

4. Responses

[00161] A response 144 is transmitted by the system 100 from the server 118 to the user 130 through the user interface 142 and the user access device 140. Each request 132 received by the system 100 typically results in the transmission of one response 144. Responses can be sufficiently large as to require the user 130 to scroll through several pages of listings 104 in order to view the entire response 144.

[00162] In some alternative embodiments, a single request 132 could result in multiple responses 144, and multiple requests 132 could be aggregated into a single response 144.

[00163] Responses 144, and the one or more groups of listings that make up the response 144, are discussed in greater detail below.

D. Administrator

[00164] As discussed above, the functionality of advertisers 102 submitting listings 104, and the functionality of users 130 submitting requests 132 and receiving responses 144, can occur in a highly automated manner requiring little or no human interaction. However, discussed above, the system 100 is configured by various administrative rules 122. Those administrative rules 122 are the responsibility of an administrator 160.

[00165] Figure 2 is an environmental block diagram illustrating one example of the administrative aspects of an information distribution system 100, including the components used by the administrator 160 to support the performance of the system 100, the types of information processed by administrator 160 of the system 100, and some of the ways in which administrator 160 interacts with the system 100.

[00166] An administrator 160 is any person, organization, or other entity that provides the system 100 used by advertisers 102 to submit listings 104, and by users 130 to send requests 132 and receive responses 144. Administrators 160 can interact with the system 100 through various individuals affiliated with the administrator 160, such as employees, contractors, or agents. The administrator 160 can also interact with the system 100 through various information technology mechanisms, such as software applications that are configured or adapted to interface with the system 100. Such interfacing advertiser applications can interact with the system 100 in both an automated and manual manner, engaging in batch, real-time, schedule, and ad-hoc interactions. As the maintainer of the system 100, the administrator 160 can also modify the performance of the system 100 outside of the software applications or other instructions 120 that make up the system 100.

[00167] A particular individual can interact with the system 100 through more than one role. For example, the administrator 160 can also exist as advertisers 102 within the system 100 by providing listings 104 to the system 100. That same administrator 160 may access the system 100 as a user 130 to obtain information for personal or household use.

[00168] The most important function of the administrator 160 involves the administrative rules 122, which control how the system 100 works. For example, administrative rules 122 determine what listings 104 are included in a response 144, and how those listings 104 are ordered or placed in a response 144. Administrative rules 122 are submitted to the system 100 through an administrator access device 161.

1. Administrator Access Devices

[00169] Administrators 160 can interact with the system 100 through a wide variety of different administrator access devices 161. The capabilities and configurations of the particular administrator access device 161 will depend on the particular function being performed. For example, a cell phone with Internet access may be an acceptable administrator access device 161 to view a report, while being unsuitable for the creation or modification of the instructions 120 which implement the administrative rules 122.

[00170] An administrator 160 interacts with the system 100 through one or more administrator access devices 161. The administrator access device 161 can allow the administrator 160 to configure the system 100 by accessing the instructions 120 through an administrator interface 162. Certain modifications to the system 100 will require that the administrator 160 modify the instructions 120, the administrative rules 122 and/or the database structure 126 in ways that cannot be accomplished within the scope of the software application(s). Such interactions can also be performed using the administrator access device 161.

[00171] Any device capable of providing the administrator 160 with access to the functionality of the system 100 or access to the information technology architecture that underlies the system 100 can function as an administrator access device 161. Examples of administrator access devices 161 include: desktop computers, laptop computers, mainframe computers, mini-computers, cell phones, pagers, personal digital assistants ("PDAs"), work stations, or other devices (collectively "computer access devices").

3. Administrator Interfaces

[00172] As indicated by an arrow pointing from the administrator access device 161 to an administrator interface 162, and from the administrator interface 162 to the server 118, the administrator interface 162 is the mechanism by which the administrator access device 161 and the administrator 160 interact with the system 100 with respect to activities that occur through the use of the software application or instructions 120, and in contrast to those activities that are performed outside of the instructions 120 by more directly interacting with the information technology architecture.

[00173] The administrator interface 162 will typically be some type of graphical user interface for configuring the instructions 120, the database structure 126, the administrative rules 122 and/or the system 100. In some embodiments, certain functionality may be performed through a web page accessed by an Internet browser so long as the administrator 160 using the administrator interface 162 provides the appropriate login information and password. The administrator interface 162 and the advertiser interface 116 should operate through secure connections to prevent misuse. In contrast, user interfaces 142 need not function through secure connections. Even embodiments where users 130 can build profiles and save various responses 144 need not be secured, although it may be desirable to provide secure connections when practical.

4. Administrative Rules

[00174] The administrative rules 122 that make up the system 100 can take on a wide variety of forms. Each embodiment of the system 100 can involve different types and combinations of administrative rules 122. The system 100 need not include all of the different types of administrative rules identified in the Figure.

a. Category Hierarchy

[00175] A category hierarchy 164 can be used by the system 100 to take into consideration the relationships between different categories, sub-categories, and category attributes 110. The user interface 142 can provide the category hierarchy 164 to users 130 in the form of a directory so that the user 130 can make category selections 138 without needing to type in any text. The category hierarchy 164 can be pre-defined by the administrator 160. The administrator 160 may need to update the category hierarchy 164 from time to time as new offering categories develop. For example, product categories such as digital video cameras and DVD burners are relatively new, as compared to film cameras and tape recorders. Dissimilar systems 100 can incorporate different category hierarchies 164 of varying depths. Different categories may be associated with varying numbers of subcategories. Processing involving the category hierarchy 164 is discussed in greater detail below.

b. Geography Hierarchy

[00176] A geography hierarchy 166 can be used by the system 100 to take into consideration the relationships between different geographical regions and geography attributes 108. The user interface 142 can provide the geography hierarchy 166 to users 130 in the form of a directory so that the user 130 can make geography selections 136 without needing to type in any text. However, in many embodiments, information such as street addresses, cities, and zip codes, will typically be typed in by users 130. The geography hierarchy 166 can include information relating to a general classification of geographical scope. For example, a particular geographic region can be associated with the label of being a nation, state/region, county, or city. Different systems 100 can incorporate different geography hierarchies 166 of varying depth. Different geographical regions may be associated with varying numbers of sub-regions. For example, a heavily populated urban area (e.g., New York City) may use additional geographic attributes to break down the region into yet smaller geographical regions, while a county in Alaska may not be associated with any cities. Processing involving the geography hierarchy 166 is discussed in greater detail below.

c. Fee Type Hierarchy

[00177] The system 100 can incorporate a wide variety of different fee types that can be used to charge advertisers 102 for their listings 104. The system 100 can be configured to prioritize and display listings 104 on the basis of distinctions relating to fee attributes associated with the listing 104, include fee type information. In some embodiments, different fee types 112 can possess a hierarchical relationship with other fee types 112, and those relationships can be represented in the form a fee type hierarchy 168. Dissimilar systems 100 can incorporate different fee type hierarchies 168 of varying depths. Different fee types 112 may be associated with varying numbers of sub-types. Processing involving the fee type hierarchy 168 is discussed in greater detail below.

d. Result Heuristic

[00178] A result heuristic 170 is the process by which the results of a request 132 are obtained. If the system 100 incorporates different hierarchies, then the relationships embodied in those hierarchies should be utilized by the result heuristic 170. In many embodiments, the result heuristic 170 and the process performed by a response heuristic 172 are identical. However, in some embodiments of the system 100, certain listings 104 contained in the "result" generated by the result heuristic 170 are not placed within the "response" 144 generated by a response heuristic 172. That is because in some embodiments, certain listings 104 are deemed to be of less interest to the user 130, and are thus not included in the response 144. In other words, in certain embodiments, the response heuristic 172 is configured to be more selective than the result heuristic 170 if the result heuristic 170 identifies a sufficient number of listings 104 to be included in the response 144 to the user 130. The administrator 160 may have additional reasons to exclude a listing 104 that would otherwise be displayed to the user 130. For example, if the advertiser 102 had not yet paid the per-hit fees for the past month or other specified period, the listing 104 could be excluded by the response heuristic 172 even though it was included in the results produced by the results heuristic 170.

[00179] Processing to identify and populate the response 144 with relevant listings 104 is described in greater detail below.

e. Response Heuristic

[00180] The response heuristic 172 is the process performed by the system 100 to populate the response 144. In many embodiments, there is no difference between the response 144 and the result, and thus there is no result heuristic 170 that is distinct from the response heuristic 172. However, the system 100 is flexible enough to incorporate a different heuristic to generate an initial tentative pool of listings 104, and then to follow-up by potentially removing certain listings 104 from the pool of listings 104 that are ultimately provided to the user 104 in the form of a response 144. The response heuristic 172 also formats the response 144, and formats the display and otherwise organizes the contents of the response 144. The response heuristic 172 includes the functionality of a placement heuristic 174, the process by which the system 100 makes placement decisions regarding the listings 104 in the response 144.

[00181] The response heuristic 172 should include as inputs, any of the data hierarchies (such as the category hierarchy 164 or geography hierarchy 166) supported by the system 100. Information within the detailed view 127 of listings can be acted upon by the system 100 to re-sort, re-position, or otherwise alter the display of the various listings 104 disclosed to the user 130 within the response 144.

[00182] Processing to identify and populate the response 144 with relevant listings 104 is described in greater detail below.

f. Placement Heuristic

[00183] As identified by the bracket originating from the response heuristic 172 and encompassing the placement heuristic 174, the placement heuristic 174 is a sub-process that is part of the response heuristic 172. The placement heuristic 174 determines the placement and order of various listings 104. Any of the different attributes processed by the system 100 can be used by the placement heuristic 174 to arrange the display of the response 144. For example, in response to a national request, the placement heuristic 174 may be configured to give the best three spots to listings associated with the three highest fixed fee amounts 111, while providing spots four and five to the listings 104 associated with the top two per-hit fee amounts 113.

[00184] Many different examples of placement processing are discussed in greater detail below.

g. Priority Metric

[00185] A priority metric 179 can be used by the placement heuristic 174 to identify the desired order of various listings 104. The inputs for the calculation of the priority metric 179 can include virtually any of the listing attributes 106 and request attributes 134 relating to the listing 104.

[00186] In some embodiments, the priority metric 179 is calculated from the type fees 112 paid by the particular advertiser 102 and a position adjustment factor 176 to incorporate the broader relationship between the administrator 160 and the advertiser 102. In those embodiments, listings 104 are organized into various groups on the basis of category attributes 110, geography attributes 108, and fee type attributes 112. The priority metric 179 is typically used within those group boundaries to determine the order of intra-group listings 104. Inter-group prioritization is typically determined by the relative desirability of the groups themselves, and not the individual priority metric 179 associated with the individual listings 104.

[00187] In other embodiments, the categorical and geographical scope of the listings 104 directly impact the priority metric 179 and all prioritization occurs on an inter-group basis.

[00188] The priority metric 179 can influenced by a popularity metric that takes into consideration the number of "hits" associated with a particular listing 104 over a particular period of time. The priority metric 179 can also be influenced by a relevance metric that takes into consideration the estimated relevance of a particular listing 104 with respect to the particular request 132 submitted the user 130.

[00189] Group-based processing and the use of the priority metric 179 are described in greater detail below.

h. Position Adjustment Factor

[00190] A position adjustment factor 176 can be used to impact the calculation of the priority metric 179 for a particular listing 104. The purpose of the position adjustment factor 176 is to take into consideration the broader relationship between the advertiser 102 and the administrator 160. For example, a loyalty factor that includes the length of time that the advertiser 102 has paid for listings on the system 100 can be used to adjust the priority metric 179 in an upward direction. The position adjustment factor 176 can also include an analysis of activities outside or independent of the system 100. For example, the size of an advertiser's advertising budget, the status of the advertiser 102 as a purchaser of other products, services or offerings sold by the administrator 160, and any other consideration relevant to the goals of the administrator 160 can be incorporated into the priority metric 179 for a particular listing 104. Considerations relating to the system 100 can also be incorporated as position adjustment factors 176. Examples of position adjustment factors 176 include but are not limited to: the total number of listings 104 paid for by the advertiser 102; the total number of categories in which the advertiser 102 has paid for listings; the geographic scope of the aggregate listings 104 paid for by the advertiser 104; the total monies paid by the advertiser 102 to the administrator 160 over a pre-defined period of time; and any other potentially relevant business factor relating to the administrator 160.

[00191] The process for using position adjustment factors 176 to calculate the result heuristic 170 is discussed in greater detail below.

i. Group Hierarchy

[00192] To maximize the ability of the system 100 to focus on the desired goals of the user 130, a fully normalized group hierarchy 178 can be used to support system 100 distinctions on the basis of the each of the other data hierarchies supported by the system 100. Whatever the relevant selections made in the request 132 submitted by the user 130, the relevant groups to be included in the resulting response 144 can be identified. Only listings 104 affiliated with the appropriate groups are then used to populate the response 144. For example, if the selections made by the user 130 include a geography selection of national advertisers with a service area in the city of Detroit, and the category selection of hair salons, one of the groups in the response will be made solely of national hair salons with service areas in the city of Detroit.

[00193] The utility and variations of group-based processing are discussed in greater detail below.

j. Minimum Fees

[00194] The ways in which fees are charged to advertisers 102 and the ways in which listings 104 are prioritized by the system 100 are subject to considerable configuration by the administrator 160 of the system 100. One limitation that can be imposed on the system 100 is a minimum payment necessary to obtain a fixed-fee listing 104 or a per-hit listing 104. The administrator 160 may determine that the overall profitability and utility of the system 100 is enhanced by encouraging advertisers 102 to pay a per-hit fee amount 113 above a predetermined threshold, as through a bidding process. A per-hit fee amount 113 need not be related to bidding, however. Offers to pay a per-hit fee amount 113 below the pre-determined threshold may not be worth the time and effort by the administrator 160. Minimum fees 165 can distinguish between different listing attributes 106. For example, local advertisers 102 for categories such as restaurants might be required to pay a larger minimum fee 165 because local listings 104 are more likely to result in a follow-up restaurant transaction by the user 104 than a national listing 104 for a bookstore without a service area in local geographical area.

[00195] Examples of minimum fees 165 being implemented by the system 100 are discussed in greater detail below.

k. Minimum Bid Incr ments

[00196] Just as the system 100 can place limitations on the minimum fee 165 needed for a per-hit fee amount 113, the system 100 can also be configured to require certain incremental bids when incorporated into a per-hit fee amount 113 to achieve priority over listings 104 associated with a minimum fee 165. For example, if the minimum per hit fee amount 113 is $0.40, the system 100 can be configured to require that a higher per hit fee amount 113 be at least $0.45.

[00197] Just as administrators 160 may set different minimum fees 165 for different groups on the group hierarchy 178, administrators may also set different minimum bid increments 167.

[00198] Examples of minimum bid increments 167 being incorporated into the system 100 are discussed in greater detail below,

l. Bid Tiers

[00199] As part of an effort to increase the per-hit fee amounts 113 associated with listings 104, the administrative rules 122 can define a wide variety of different bid tiers 169. All bids within the range of the bid tier 169 are ordered in a random fashion with respect to intra-tier positioning. Bid tiers 169 can be based on bid ranges that are as small as fractions of a cent (using US monetary nomenclature) or as large as deemed desirable by the administrator 160. In some embodiments, the randomness of the ordering within the bid tier 169 is weighted by the increments in the bid tier 169 so that a higher bid has a higher probability of being higher in the order than a lower bid within the bid tier 169. In other embodiments, all listings 104 within the bid tier 169 are treated equally.

m. Enhanced Display Fee

[00200] An enhanced display fee 163 can be charged for listings 104 in conjunction with various pre-defined “prominence products” offered by the administrator 160. Prominence products relate to listing attributes that impact how a listing is perceived by users 130. The following listing attributes 106 are examples of potential bases for charging some type of enhanced display fee of the listing: (a) length of text; (b) font size; (c) font type; (d) incorporation of graphics; (e) incorporation of color; (f) incorporation of animation; or (g) any other mechanism that calls more attention to the listing 104.

[00201] In some embodiments, the enhanced display fee 163 lowers the impact of the overall per-hit fee amount 113 on the priority metric 179. For example, if the per-hit fee amount is $0.50, and the enhanced display fee is

$0.30 per-hit, then the portion of the per-hit fee amount 113 that is used to calculate the priority metric 179 is $0.20.

[00202] The various uses of the enhanced display fee 163 are discussed in greater detail below.

III. CATEGORY-BASED PROCESSING

A. Description of Category Hierarchy Diagrams

1. Abstract Diagram of Category Levels

[00203] Figure 3a is a hierarchy diagram illustrating one example of a category hierarchy 164 that is three-levels deep. Different embodiments of the system 100 can incorporate widely different category hierarchies 164 with different levels of depth. Some embodiments will include hierarchies that are only one level deep, while others may include hierarchies that are much deeper than three-levels deep. The proper design of the category hierarchy 164 is dependent upon the scope of the goods, services, and other offerings to be advertised on the system 100.

[00204] At the top of the diagram is the aggregation of all categories 180. At this level of abstraction, all products are part of the same meta-category and category attributes 110 do not possess any special status with respect to the processing of the system 100. In such an embodiment, category attributes 110 are processed like any other "search term" functioning as a key word by a search engine. For example, the term "restaurant" would exist as a potential search term, but there would not be a subset of listings 104 categorized in terms of subject matter.

[00205] Below the meta-category 180 are the level 1 categories 182. On a directory structure, level 1 categories 182 are the large categories. For example, "restaurants" might be an appropriate level 1 category 182. Some embodiments of the system 100 may involve category "hierarchies" 164 that are only one level deep. Such "hierarchies" do not truly incorporate category hierarchical relationships, because no category is a sub-category of another. However, unlike the meta-category embodiment described above, a category hierarchy 182 that is one level deep does allow listings 104 to be organized into categories in a way that is superior to the use of search engine search terms. Category attributes 110 are more useful than a search term submitted to a search engine as a "key word" because the listings 104 are organized into categories 182 in a holistic manner, in contrast to the more superficial text searching invoked by a search engine.

[00206] Below level 1 categories 182 are two or more level 2 categories 184. In some embodiments, a particular category may have only one sub-category. Each level 2 category is a sub-category of a level 1 category 182, but each level 1 category 182 need not be associated with level 2 categories 184. One example of a level 2 category 184 in relation to a level 1 category is the relationship between "Italian Restaurants" and "Restaurants" generally. Every Italian Restaurant is a Restaurant, but not all Restaurants are Italian Restaurants.

[00207] Below level 2 categories 184 are two or more level 3 categories. Each level 3 category 186 is a sub-category of a level 2 category 184, but each level 2 category 184 need not be associated with level 3 categories 186. One example of a level 3 category 186 in relation to a level 2 category is the relationship between "Italian Restaurants that offer pizza delivery" and "Italian Restaurants" generally. Every Italian Restaurant that offers pizza delivery is an Italian Restaurant, but not all Italian Restaurants offer pizza delivery.

[00208] The illustration in Figure 3a is provided solely for the purpose of illustrating the concept of hierarchical relationships in the context of category attributes 110. In many embodiments of the system 100, the actual category hierarchy 164 would be too large to fit on even many different sheets of paper.

2. Category Hierarchy populated with examples

[00209] Figure 3b is a category hierarchy diagram 164 illustrating a specific example of the types of categories that can be incorporated into the system 100. Beneath the meta-category of all categories 180 are three level 1 categories 182, including a Consumer Electronics category 182.02, a Book Store category 182.04, and a Restaurant category 182.06.

[00210] The Consumer Electronics category 182.02 is made up of two sub-categories, a Stereo System category 184.02 and a Cameras category 184.04. The Stereo System category 184.02 is not made up of any sub-categories, while the Cameras category 184.04 is made up of the sub-categories of Digital Cameras 186.02 and Video Cameras 186.04.

The Book Stores category 182.04 is an example of a level 1 category 182 that is not made up of any sub-categories. In a real world implementation of the system 100, such an outcome may be indicative of a category hierarchy 164 in need of change in design. For example, a real world implementation of a level 1 category 182 without level 2 categories 184 may indicate that the level 1 category is to narrow, or conversely, that the level 1 category 182 should be associated with various sub-categories (e.g. level 2 categories 184). However, for the purposes of illustration, it is important to note that different branches of the category hierarchy 164 are of different lengths, and themselves result in a different number of sub-branches. That diversity of structure can include level 1 categories 182 that are not associated with any sub-categories.

[00211] The level 1 category of Restaurants 182.06 is made up of three sub-categories in the Figure, a Fast Food category 184.06, a Pizza category 184.08, and a Chinese Restaurants category 184.10.

B. How can the Category Hierarchy impact Requests?

[00212] In many embodiments of the system 100, a category selection 138 is part of the request 132 submitted by the user 130. In a subset of those embodiments, the category selection 138 is made by the user 130 using a directory structure that represents the category hierarchy 164. In such embodiments, the category selection 138 can be made without the typing in of any text by the user 130. In other embodiments, the category selection 138 is entered as text that is then translated into the appropriate category in the category hierarchy 164.

C. How can the Category Hierarchy impact Results?

[00213] Listings 104 can be either included or excluded from the results on the basis of similarities between the category selection 138 and the category attributes 110 associated with the various listings 104. The degree to which those two variables overlap can be evaluated using the category hierarchy 164. In many embodiments, the category hierarchy 164 has a substantial impact on how groups are defined by the system 100 with respect to the particular request 132.

[00214] Distinctions within the category hierarchy 164 can be used to distinguish between category attributes 110 within the result. The more complex and developed the category hierarchy 164, the finer the possible distinctions that can be made. For example, if the hierarchy 164 distinguishes between digital cameras and more traditional analog cameras, then requests 132 by users 130 can take advantage of the fact that the administrator 160 has organized the various camera listings 104 into listings for digital cameras and more traditional cameras. If a particular advertiser 102 has a surplus of one type of camera but not the other, that advertiser 102 has the opportunity to pay a greater fee relating to the applicable category in order to reduce the surplus inventory. If the system 100 possesses a less detailed category hierarchy 164, or lacks a category hierarchy 164 altogether, the ability of the system 100 to focus the efforts of users 130 is impeded.

D. How can Category Hierarchy impact the Response?

[00215] In many embodiments, there is no distinction between the results and the responses 144. However, in certain embodiments, the response 144 is generated by modifying the result with the response heuristic 172. In such embodiments, the response heuristic 172 performs the function of further filtering out listings 104 on the basis of the various listing attributes 106 associated with the listings 104. In embodiments where there is a distinction between the result and the response 144, the category hierarchy 164 can be utilized to generate the result as well as the response 144.

[00216] In the same way that the category hierarchy 164 can impact which listings 104 result from the application of the request 132 to the database structure 126, the category hierarchy can also play a part of "winnowing out" certain listings 104 from the response 144 that were tentatively included in the results. As discussed both above and below, distinctions in the category hierarchy 164 can be an important input for the dynamic identification of relevant groups from the group hierarchy 178 to be included in the response 144.

[00217] Distinctions within the category hierarchy 164 can impact what groups from the group hierarchy 178 are included in the response 144, which listings 104 are included in the response 144, and how the various listings 104 are organized within the response 144.

IV. GEOGRAPHY-BASED PROCESSING

A. Description of Geography Hierarchy Diagrams

1. Abstract Diagram of Geography Levels

[00218] Figure 4a is a hierarchy diagram illustrating one example of a geography hierarchy 166 that is three levels deep. Different embodiments of the system 100 can incorporate different geography hierarchies 166. For example, the system 100 could be implemented on a world-wide basis that would include many different countries, or could be implemented with a more regional approach. Moreover, some embodiments will include hierarchies that are only one level deep, while others may include hierarchies that are much deeper than three-levels deep. The proper design of the geography hierarchy 166 is dependent upon the geographic scope the advertisers 102.

[00219] At the top of the diagram is the aggregation of all geographies 190. At this level of abstraction, all geographical regions are part of the same meta-geography region and geographical attributes 108 do possess any special status with respect to the processing of the system 100. In such an embodiment, geographical attributes 110 are processed like any other search term functioning as a key word in a search engine.

[00220] Below the meta-geography 190 are the level 1 geographies 192. In a geography directory embodiment, level 1 geographies 192 are the largest geographical regions. In embodiments involving worldwide communications over the Internet, level 1 geographies 192 may represent national boundaries.

[00221] Below level 1 geographies 192 are level 2 geographies 194. Each level 2 geography is a sub-geography of a level 1 geography 194, but each level 1 geography 192 need not be associated with level 2 geographies 194. Below level 2 geographies 194 are level 3 geographies 196. Each level 3 geography 196 is a sub-region of a level 2 geography 194, but each level 2 geography 194 need not be associated with level 3 categories 196.

[00222] In many embodiments of the system 100, level 1 geographies 192 are associated with national boundaries, level 2 geographies 194 are associated with state or intra-national regional boundaries, and level 3 geographies 196 are associated with cities.

[00223] The illustration in Figure 4a is provided solely for the purpose of illustrating the concept of hierarchical relationships in the context of geography attributes 108. In many embodiments of the system 100, the actual geography hierarchy 166 would be too wide to fit on even numerous different sheets of paper line up side by side.

[00224] In many embodiments of the system 100, the geography hierarchy 166 is pre-defined by the administrator 160, and subject to modification or enhancement from time to time by the administrator 160. In some embodiments, users 130 can make certain geography selections 136 from a directory or menu of predefined option.

[00225] In some embodiments of the system 100, different geographic regions within the geographic hierarchy 166 can overlap. Moreover, a second level geography 194 can be associated with more than one first level geography 192. For example, some cities span across more than one county or even more than one state.

2. Diagram of Specific Region Types

[00226] Figure 4b is a geography hierarchy 166 diagram illustrating a geography hierarchy that includes national regions 192.02 as level 1 geography regions 192, regional/state regions 194.02 as level 2 geography regions 194, and local regions 196.02 as level 3 geography regions 196. In some embodiments, local regions 196.02 are divided further by attributes such as 9 digit zip codes or some other geography attribute 108. Such smaller regions can be referred to as zones.

3. Service Areas

[00227] In addition to associating listings 104 with geographic regions indicating the scope of an advertiser's 102 activities, the system 100 can also include additional information as to various service areas within the broader geographic activities of advertisers 102. Service area attributes can transform a two-dimensional geography hierarchy 166 into a three-dimensional geography hierarchy 166. Service areas indicate that an advertiser 102 has a specific presence in one or more sub-regions of the geographic region associated with the advertiser 102. For example, a national book store chain can be said to have service area in each location where there is a book store. In contrast, a nationwide book store that relies exclusively on Internet sales would not possess any service areas within the geographic regions of the advertiser 102. A nationwide book store could also be considered to possess a "nationwide" service area that does not single out any smaller geographic regions.

[00228] Figure 4c is a partial geography hierarchy 166 diagram illustrating various service areas that can be associated with a national level geographic region 192.02. In some embodiments, a listing 104 associated with a national geography 192.02 can also be associated with specific metropolitan area service areas (NMetro) 200 or a state-wide service area (NState) 202. For some listings 104, there will be no desire on the part of the advertiser 102 to identify a subset of the geographic region as a service area, and such listings 104 can treat the entire national region as a national service area (N) 204. Advertisers 102 that exist exclusively or substantially through an online presence are more likely to pursue a national service area (N) 204 approach than more traditional brick-and-mortar businesses that augment their businesses through online sales. Service areas are an additional input to be taken into consideration by the response heuristic 172 and the placement heuristic 174.

[00229] Figure 4d is a partial geography hierarchy 166 diagram illustrating various service areas that can be associated with a regional/state geographic region 194.02. A regional/state level geography 194.02 can include a city service area (RCity or SCity) 205, a county service area (RCounty or SCounty) 206, or state-wide service area (R or S) 206a.

[00230] Figure 4e is a partial geography hierarchy 166 diagram illustrating various service areas that can be associated with a local geographic region 196.02. A local geography 196.02 can include a city service level (LCity) 207 or a county service level (LCounty) 208.

B. How can the Geography Hierarchy impact Requests?

[00231] In many embodiments of the system 100, a geography selection 136 is part of the request 132 submitted by the user 130. In a subset of those embodiments, the geography selection 136 is made by the user 130 using a directory structure that represents the geography hierarchy 166. In such embodiments, a portion of the geography selection 136 can be made without the typing in of any text by the user 130. In other embodiments, the geography selection 136 is entered as text.

C. How can the Geography Hierarchy impact Results?

[00232] Listings 104 can be either included or excluded from the results on the basis of similarities between the geography selection 136 and the geography attributes 110 associated with the various listings 104. The degree to which those two variables overlap can be evaluated using the geography hierarchy 166. In many embodiments, the geography hierarchy 166 has a substantial impact on how groups are defined by the system 100 with respect to the particular request 132.

[00233] Distinctions within the geography hierarchy 166 can be used to distinguish between geography attributes 108 within the result. The more complex and developed the geography hierarchy 166, the finer the possible distinctions that can be made.

D. How can Geography Hierarchy impact the Response?

[00234] In many embodiments, there is no distinction between the results and the responses 144. However, in certain embodiments, the response 144 is generated by modifying the result with the response heuristic 172. In such embodiments, the response heuristic 172 performs the function of further filtering out listings 104 on the basis of the various listing attributes 106 associated with the listings 104. In embodiments where there is a distinction between the result and the response 144, the geography hierarchy 166 can be utilized to generate the result as well as the response 144.

[00235] In the same way that the geography hierarchy 166 can impact which listings 104 result from the application of the request 132 to the database structure 126, the geography hierarchy 166 can also play a part of "winnowing out" certain listings 104 from the response that were tentatively included in the results. As discussed both above and below, distinctions in the geography hierarchy 166 can be an important input for the dynamic identification of relevant groups from the group hierarchy 178 to be included in the response 144.

[00236] Distinctions within the geography hierarchy 166 can impact what groups from the group hierarchy 178 are included in the response 144, which listings 104 are included in the response 144, and how the various listings 104 are organized within the response 144.

V. FEE TYPE-BASED PROCESSING

A. Description of Fee Type Hierarchy

[00237] Figure 5 is a hierarchy diagram illustrating one example of a fee type hierarchy (or simply "fee hierarchy" or "type hierarchy") 168. Different listings 104 within the same response 144 can be associated with a wide variety of different compensation arrangements or fee types.

[00238] Two high level fee types are fixed fee types 211 and per-hit fee types 212. Fixed fee listings 104 do not involve a per transaction charge of the advertiser 102. In contrast, a per-hit fee listing 212 does involve a transaction-based compensation approach. A hybrid fee type 213 includes listings 104 that include both a fixed fee amount 111 and a per-hit fee amount 113 that exceeds $0.00. The per-hit fee type 212 includes listings 104 that include a per-hit fee amount 113 that exceeds $0.00 and a fixed fee amount 111 of $0.00. The fixed-fee type 211 includes listings 104 that include a per-hit fee amount 113 of $0.00 and a fixed fee amount 111 that exceeds $0.00. In some embodiments, a no charge listing 104 does not include a fixed fee amount 111 or a per-hit fee amount 113, while in other embodiments, a no charge listing 104 is associated with a per-hit fee amount 113 of $0.00 and/or a fixed fee amount 111 of $0.00.

1. Per-Hit Fee Types

[00239] There are different potential derivations of per-hit fee types 212. In many embodiments, the per-hit fee amount 113 that is charged by the administrator 160 is constant, regardless of the time of day, date, or other contextual information. Such a per-hit fee type 212 can be referred to as a single per-hit fee type 214. In contrast, a contingent per-hit fee type 216 provides for automated adjustments to the per-hit fee 113 charged by the administrator. For example, a florist might be willing to pay more for a "hit" in the morning than they would during the evening hours. Special consideration can be given to holidays, special sales, and other potentially industry-specific or even business-specific practices.

2. Fixed F Types

[00240] There are also several different variations of fixed fee types 211. Fixed fees amounts 111 can be "fixed" on an annual basis (an annual fixed fee type 220), a monthly basis (a monthly fixed fee type 222), a weekly basis (a weekly fixed fee type 224), or on a less regular basis (a special fixed fee type 226). The special fixed fee type 226 can be limited to particular holidays or shopping periods, such as the Christmas holiday shopping season, the week before days such as Valentines Day, Mothers Day, Fathers Day, etc.

B. How does a Fee Type impact a Request?

[00241] None of the fee types 112 in the fee hierarchy 168 impacts the requests 132 sent by users 130 to the system 100. In many embodiments, the fee types 112 associated with the various listings 104 are not viewable by the user 130 or other advertisers 102. In alternative embodiments, other advertisers 102 can obtain information about fee types 112, and in some alternative embodiments, even users 130 can access compensation information relating to the listings 104 in the response 144.

[00242] As a general matter, the fee charged by the administrator 160 is a matter between the administrator 160 and the advertiser 102 and is thus of questionable importance or even interest to users 130. However, fee types 112 and fee type hierarchy 168 do impact the groups contained in the response 144, and thus fee types 112 can be as important to the result heuristic 170, the response heuristic 172, and the placement heuristic 174 as geography attributes 108, category attributes 110, or any other type of attribute.

C. How does a Fee Type impact the Result?

[00243] Fee types 112 associated with the various listings 104 in the database structure 126 impact the groups that are included in the result generated from the request 132 submitted by users 130. Unlike attributes such as category attributes 110 and geography attributes 108, the impact of fee type 112 is set primarily by the administrator 160. Users have little cognizance, much less influence, over the impact of fee types 112.

D. How does a Fee Type impact th Response?

[00244] By influencing the groups of listings 104 that are included in the response 144, the fee type 112 associated with the various listings 104 in the database structure 126 can determine which groups of listings will be included in the response 144 generated from the request 132 submitted by users 130. As already noted with respect to Section C, users have little cognizance, much less influence, over the impact of fee types 112, as contrasted with attributes such as category attributes 110 and geography attributes 108.

VI. GROUP-BASED PROCESSING

A. Inputs for Group Determinations

[00245] Figure 6a is a relationship diagram illustrating one example of how attributes associated with a group hierarchy 178 are a function of attributes associated with the category hierarchy 164, the geography hierarchy 166, the fee hierarchy 168, and any other hierarchy of attributes used by the system 100 to focus on the desires and interests of users 130, advertisers 102, and administrators 160.

[00246] In a fully normalized embodiment of the group hierarchy 178, each distinction within one of the input data hierarchies results in a corresponding distinction within the group hierarchy 178. For example, one group of listings 104 could be limited to listings 104 for antique furniture (a category-based distinction) within the city of Topeka, Kansas (a geography-based distinction) with a special fixed fee arrangement (a fee-based distinction) for the week before the 4th of July. In alternative embodiments, the group hierarchy 178 can be configured to be less "sensitive" to distinctions within the other data hierarchies.

B. Group Hierarchy Diagram

[00247] Figure 6b is a hierarchy diagram illustrating one example of a group hierarchy 178. As discussed above, the group hierarchy 178 can incorporate all of the branches and distinctions included in the other data hierarchies. Thus, the illustration in Figure 6b is highly simplified

[00248] At the top of the group hierarchy 178 is a meta-group that includes all groups 230. Below the meta-group are more specific groups 230 that are made up of various sub-groups. The hierarchical structure of the group hierarchy 178 will mirror the distinctions of the other data hierarchies in a fully normalized embodiment of the system 100. The particular "level" of group 232 included in a response will be impacted by the administrative rules 122, the request 132 provided by the user 130, and the listing attributes 106 associated with the listing records 128 in the database structure 126.

[00249] As illustrated in the diagram, different groups 232 will have a different number of listings 104 that are associated with the particular group 232.

C. Detailed Input Diagram for Group Processing

[00250] Figure 6c is an input/output diagram illustrating an example of request attributes 134, listing attributes 106, and administrative rules 122 being used to define the groups 232 to identify the listings included in the response 144.

[00251] The request attributes 134 inputted to the group determination process can include one or more geography selections 136, one or more category selections 138, and any other attribute types relating to the request 132.

[00252] The listing attributes 106 inputted to the group determination process can include one or more geography attributes 108, fee type attributes 112, category attributes 110, and any other attributes relating to listings 104 or the advertiser 102.

[00253] The administrative rules 122 define the possible branches and distinctions defined in the group hierarchy 178. Although a single listing 104 can potentially belong to several groups 232, that same single listing 104 should not be associated with more than one group 232 within a particular response 144. The administrative rules 122 can be configured to prevent such an occurrence in order to prevent a response 144 from including duplicative listings 104 (e.g. the same listing 104 appearing more than once).

[00254] All of those inputs influence the determination of what groups 232 are included in a response 144, and what listings 104 are included in those groups 232.

D. Specific Example of a Group Determination

[00255] Figure 6d is a process flow diagram illustrating the submission of a request 132 to a database structure 126, and inclusion of various listings in the response 144.

[00256] The specific request attributes 134 of a barbershop category selection 138 and a small town USA geography selection 136 are presented to the system 100 in order to provide a meaningful response 144 to the submitting user 130.

[00257] The database structure 126 includes various listing records 128 associated with listing attributes 106 that include various category attributes 110, fee type attributes 112, and geography attributes 108. Some of the listing records 128 in the database structure 126 relate to barbershops and some of the listing records 128 relate to the geography of Small Town U.S.A. A smaller group of listing records 128 will relate to both barbershops and Small Town U.S.A. The administrative rules 122 define what constitute matches of the request attributes 134 and the listing attributes 106. For example, the administrative rules 122 may provide that a request for a more specific category or geography will include a broader category of geography if a narrower match does not exist. Similarly, the administrative rules 122 can determine whether a more general category or geography automatically includes a narrower category or geography.

[00258] The configuration of the group hierarchy 178 by the category hierarchy 164, geography hierarchy 166, and fee type hierarchy 168 is discussed above. Thus, the administrative rules 122 define the realm of potential groups 232, while the request attributes 134 and listing attributes 106 determine which listings 104 are to be included in the response 144.

[00259] The end result is the response 144 on the bottom left portion of the Figure. In this example, there are two groups 232 of listings 104, one group 232 made up of fixed fee listings 104 for Small Town, USA barbershops and a second group 232 made up of per-hit listings 104 for Small Town, USA barbershops. It is also possible, for instance, to have a third group 232 made up of a hybrid fee type 213. Different examples of group selection in accordance with the administrative rules 122 are illustrated in Figures 13-19 and are discussed below.

VII. SUBSYSTEM-LEVEL VIEWS

A. Function-Based Subsystem Components

[00260] Figure 7a is a block diagram illustrating one example of a subsystem-level view of the system 100 that includes a request subsystem 300 and a response subsystem 302.

1. R quest Subsystem

[00261] A request subsystem 300 is utilized by users 130 to create requests 132 and to submit requests 132 to the system 100. Requests 132 can include a variety of different request attributes 134, including various geography selections 136 and category selections 138. The number and types of attributes included as request attributes 134 with respect to a particular request 134, can vary widely from embodiment to embodiment, or even from request 132 to request 132 within a particular embodiment.

[00262] In some embodiments, one or more of the request attributes 134 can be "blank" or "null" values. In other embodiments, request attributes 134 can include multiple geography selections 136 and multiple category selections 138. Requests 132 and request-related processing by the system 100 is described both above and below.

2. Response Subsystem

[00263] A response subsystem 302 is used to generate responses 144 to the requests 132 from the request subsystem 300. The response subsystem 302 populates the response 144 with selectively identified listings 104 from the database structure 126 that includes the listings 104 stored by the system 100. A variety of heuristics can be used to identify the appropriate listings 104, and to format, order, or otherwise organize the listings 104 within the response 144.

[00264] The response subsystem 302 can generate responses 144 from requests 132 using a variety of different response heuristics 172. Response heuristics 172 can determine the content and format of the response 144. To order or place the various listings 104 within the response 144, the response heuristic 172 can invoke the placement heuristic 174. In many embodiments of the system 100, each listing 104 is associated with a fee type 112. Even unpaid listings (e.g. free listings) 104 can be associated with a per-hit fee 113 of $0.00 per-hit. In a typical embodiment, the various listings 104 are associated with one of two fee types 112, a per-hit fee type 212 and a fixed fee type 211. Listings associated with either fee type 112 can still be associated with both a per-hit fee amount 113 and a fixed fee amount 111, although one of those fee amounts will typically be $0.00. The number and types of attributes associated with the various listings 104 can vary widely from embodiment to embodiment, and even from listing 104 to listing 104 with a particular embodiment.

[00265] To promote highly "focused" responses, the response subsystem 100 can utilize various types of group-based processing, such as the group hierarchy 178 discussed above. In many embodiments, a single response 144 will typically include multiple groups 232 of listings 104. The groups 232 included in the response 144 are determined by the combination of request attributes 134, listing attributes 106, and administrative rules 122. In a highly focused embodiment, the system 100 can eliminate all listings 104 from the response 144 that do not fully match with the request attributes 134 included in the request 132.

[00266] Different embodiments of the system 100 can utilize different combinations of inputs for group-based processing. For example, some embodiments of the system 100 will not include the category hierarchy 164, geography hierarchy 166, or fee type hierarchy 168. However, a fully normalized embodiment of the system 100 maximizes the "sensitivity" of the system 100 to the needs and desires of users 130. In a fully normalized embodiment, all of the listings 104 associated with the group 232 share category, geography, and fee type attributes to a highly focused degree.

[00267] As discussed above, groups 232 are defined by listing attributes 106 shared in common by the various listings 104. For example, the group 232 consisting of national advertisers regardless of category or fee type is likely to be very large, while the group 232 of antique dealers purchasing per-hit listings and specializing exclusively in 16th century antiques in Small Town, U.S.A. is likely to be quite small. The system 100 performs a "focusing" function by defining the appropriate group 232 identities for the particular request 132. The "focusing" function is configured by the administrative rules 122. The administrative rules 122 can be configured to be more or less "sensitive" in particular contexts. For example, if there are only a few medical specialists within the state that can perform a particular type of procedure, the administrative rules might be configured to include a broader geography than the geography selection 136 specified within the request 132. Similarly, a request 132 that included a highly specific sub-category selection 138 could be generalized to a broader category if no listings 104 qualified for the more narrow scope. Expansion of scope can also work in the other direction, with a more general attribute at a higher level in the data hierarchy capturing more specialized attributes that are lower in the data hierarchy. These different nuances can be customized by the administrator on an attribute by attribute basis if desirable.

[00268] In some embodiments, the priority metric 179 is only used for intra-group comparisons, and thus values in common with other group listings 104 can be ignored in calculating the priority metric 179. For example, a group 232 sharing a specific category attribute 110 and a specific geography attribute 108 will not be distinguished from each other on the basis of those attributes. In such an embodiment, different groups 232 can have pre-defined "spots" within the response 144 that the listings 104 within those applicable groups 232 compete for in accordance with the administrative rules 122. Embodiments where the priority metric 179 is limited to intra-group competition can be referred to as intra-group competitive embodiments.

[00269] In other embodiments, groups 232 are not allocated pre-defined spots, and the priority metric 179 is used to compare listings 104 belong to different groups 232. Such embodiments can be referred to as inter-group competitive embodiments.

[00270] Although listings 104 are typically selected for inclusion within a particular response 144 on the basis of group affiliation, listings 104 need not be displayed in a manner that is sorted by group 232. To the contrary, it can be beneficial to purposely "break up" listing sequences that would otherwise include solely one group of listings 104. Thus, a listing 104 associated with one group 232 could be adjacent to two or more listings 104 not associated with the same group 232. For example, it may be desirable to include a single fixed fee listing 104 between two or more per-hit fee listings 104. Responses 144 and response-related processing is discussed both above and below. Detailed examples of various potential arrangements are discussed below.

3. Result Subsystem

[00271] Figure 7b is a block diagram illustrating one example of a subsystem-level view of the system 100 that includes a request subsystem 300, a result subsystem 304, and a response subsystem 302. In embodiments of the system 100 that include the result subsystem 304, the result subsystem 304 generates a result from the request 132 captured by the request subsystem 300, and the response subsystem 302 generates the response 144 from the result provided by the result subsystem 304.

[00272] As discussed above, the system 100 can be configured to distinguish between the result generated from the request 132 and the response 144 provided to the user 130 in light of the result. The response 144 can be subject to additional "winnowing out" of listings 104 that are included in the result generated by the result subsystem 304. In other words, listings 104 included in the result may not necessarily end up in the response 144 if the response heuristic 172 determines that the "match" is not focused enough, or for any other reason, as configured by the administrative rules 122.

[00273] In another embodiment where the result subsystem 304 generates the result from the request 132, and the response subsystem 302 generates the response 144 from the result, the result heuristic 170 can include potentially any process for selectively identifying relevant matches and the result heuristic 170 is discussed above.

4. Administrative Subsystem

[00274] Figure 7c is a block diagram illustrating one example of a subsystem-level view of the system 100 that includes a request subsystem 300, a result subsystem 302, a response subsystem 304, and an administrative subsystem 306.

[00275] The administrative subsystem 306 is the means by which administrative rules 122 are created, configured, updated, and deleted within the system 100. Thus, the administrative subsystem 306 impacts the functioning of the other subsystems because the administrative rules 122 define how the request subsystem 300 captures requests 132, how the result subsystem 304 generates results from requests 132, and how the response subsystem 302 generates responses 144 from results.

[00276] The administrative rules 122 are discussed both above and below.

B. Entity-Based Subsystem Components

[00277] Figure 8a is a block diagram illustrating one example of a subsystem-level view of the system 100 that includes a user subsystem 310 and a sponsor subsystem 312. The user subsystem 310 interacts with the sponsor subsystem 312 in the way that the system 100 allows users 130 to interact with advertisers 102 and their corresponding listings 104.

1. User Subsystem

[00278] A user subsystem 310 can be used by users 130 to submit requests 132 and receive responses 144. The user subsystem 310 includes the user interface 142. The user subsystem 310 is the means by which users 130 interact with the system 100 and the listings 104 submitted by the advertisers 102. The user subsystem 310 can configure the ways in which request attributes 134 are captured and transmitted to the system 100. The user subsystem 310 can include functionality such as user profiles, user history, and the ability to save requests 132. The user subsystem 310 allows the user 130 to focus their efforts at information retrieval.

[00279] The ability of users 130 to create, submit, and supplement requests 132, as well as the ability of users 130 to interact with responses 144 to requests, is discussed both above and below.

2. Sponsor Subsystem

[00280] A sponsor subsystem 312 can be used by advertisers 102 to submit listings 104 to the system 100, to modify those listings 104, and to access various reports provided by the system 100. The sponsor subsystem 312 includes the advertiser interface 116. The sponsor subsystem 312 is the means by which advertisers 102 interact with the system 100 and the requests 132 submitted by the users 130. The sponsor subsystem 312 can configure the ways in which listing attributes 106 are captured and transmitted to the system 100. The sponsor subsystem 312 can include any type of input that can impact the priority metric 179 for a particular listing 179. The sponsor subsystem 312 allows the advertiser 102 to focus their efforts at disseminating information to users 130 who are most likely to be interested in doing business with the advertiser 102.

3. Administrator Subsystem

[00281] Figure 8b is a block diagram illustrating one example of a subsystem-level view of the system 100 that includes a user subsystem 310, a sponsor subsystem 312, and an administrator subsystem 314.

[00282] The administrator subsystem 314 is the mechanism by which the administrator 160 interacts with the system 100, providing the mechanism for creating, updating, and deleting of administrative rules 122. The administrator subsystem 314 includes the administrator interface 162. The administrative subsystem 314 is the means by which administrative rules 122 are created, configured, updated, and deleted within the system 100. Thus, the administrative subsystem 314 impacts the functioning of the other subsystems because the administrative rules 122 define how the user subsystem 310 interacts with users 130 and how the sponsor subsystem 312 interacts with advertisers 102.

[00283] The types of administrative rules 122, and their impact upon the processing performed by the system 100 is discussed both above and below.

C. Component-Based Subsystem Components

[00284] Figure 9a is a block diagram illustrating one example of a subsystem-level view of the system 100 that includes an interface subsystem 316 and a listing subsystem 318. The interface subsystem 316 interacts with the listing subsystem 318 through the activities of users 130, advertisers 102, and administrators 160.

1. Interface Subsystem

[00285] An interface subsystem 316 is what allows users 130, advertisers 102, and administrators 160 to interact with the system 100. The interface subsystem 316 includes the various interfaces, including the user interface 142, the advertiser interface 116, and the administrator interface 162. In many embodiments of the system 100, all interactions through the interface subsystem 316 are constrained by the limitations set forth in the administrative rules 122. The different interfaces of the interface subsystem 316 can transmit and receive information from the system 100 in a simultaneous or substantially simultaneous manner. The interface subsystem 316 can be configured to allow advertisers 102 to submit listings 104 to the listing subsystem 318, and users 130 to request listings 104 from the listing subsystem 318.

[00286] The different interfaces of the interface subsystem 316 are described above. Specific examples of various "screens" are discussed below with respect to various screen print diagrams.

2. Listing Subsystem

[00287] A listing subsystem 318 can be used to store and process the various listings 104 within the database structure 126 and accompanying information technology architecture. Any direct interaction with the listings 104 occurs through the listing subsystem 318. The listing subsystem 318 makes the various listings 104 stored in the database structure 126 accessible to the interface subsystem 316 in accordance with the administrative rules 122. In some embodiments, the administrative rules 122 can be accessed and modified through a focus subsystem 320 that controls how the various result heuristics 170, response heuristics 172, and placement heuristics 174 "focus" on various listings 104.

[00288] The listing subsystem 318 is configured by the administrative rules 122, which are discussed above and below. The listing subsystem 318 controls how listing records 128 are stored in the database structure 126, and which listing attributes 106 are associated with the various listings 104. The detailed views 127 and summary views 129 associated with the various listings 104 are part of the functionality of the listing subsystem 318.

3. Focus Subsystem

[00289] Figure 9b is a block diagram illustrating one example of a subsystem-level view of the system 100 that includes an interface subsystem 316, a listing subsystem 318, and a focus subsystem 320. The focus subsystem 320 provides the means for "focusing" the listings 104 made accessible to the user 130 in responses 144 to requests 132. The focus subsystem 318 includes all of the administrative rules 122, including the various data hierarchies defined by the administrator 160.

[00290] The focus subsystem 320 can impact how listings 104 are created, transmitted to, stored, updated, or deleted by the listing subsystem 318. The focus subsystem 320 can also impact how information from the interface subsystem 316 is used to obtain responses 144 from the listing subsystem 318. The administrative rules 122 that make up the focus subsystem 320 are described above, and specific examples of those rules being implemented by the system 100 to focus various requests 132 are discussed below.

VIII. PROCESS-FLOW VIEWS

A. System-Process Flow

[00291] Figure 10 is a flow chart diagram illustrating one example of a process that can be performed by an administrator 160 using the system 100.

[00292] At 350, the administrative rules 122 are defined by the administrator 160.

[00293] At 352, a database structure 126 of listings 104 is maintained. As discussed above, listings 104 are typically stored as listing records 128 within the database structure 126.

[00294] At 354, a request 132 is received from a user 130.

[00295] At 356, two or more relevant groups 232 are identified to be included in the response 144. The groups 232 can also be populated with other appropriate listings 104 during this step.

[00296] At 358, the listings 104, including those within the groups 232, are ordered and positioned in accordance with the placement heuristic 174 (which can also be a referred to as a position heuristic).

[00297] At 360, the response 144 can then be transmitted back to the user 130. The user 130 can interact with the response 144 by activating links, calling the advertiser 102 on the phone, or any other type of follow-up activities. In some embodiments of the system 100, the user 130 may click a link within the listing 104 to have the user access device 140 automatically call the advertiser 102 over an Internet phone service. The user 130 may invoke a compare function to place two listings 104 adjacent to each other in order to better compare the merits to the two advertisers 102 and the two listings 104. In some embodiments, as described below, the user 130 may also toggle between detailed views 127 and summary views 129 of particular listing records 128.

B. Advertiser-Process Flow

[00298] Figure 11 is a flow chart diagram illustrating one example of a process that can be performed by an advertiser 102 that submits a listing 104 to the system 100.

[00299] At 362, the advertiser 102 submits information for the listing 104. This can be done electronically through the system 100, or through more traditional hard-copy means.

[00300] At 364, listings 104 are associated with various listing attributes 106. This process can involve both the advertiser 102 and the administrator 160. The advertiser 102 can play a part in identifying the audience for the listing 104, but the administrator 160 can play an important role in placing the particular listing 104 into the context of various group hierarchies 178 that are discussed above.

[00301] At 366, advertisers 102 can interact with users 102 after those users 130 access the particular listing 104 as part of one or more responses 144.

[00302] At 368, advertisers 102 can view various reports relating to listing attributes 106 and various traffic metrics. Traffic metrics are any numerical measurements relating to the "traffic" experienced by one or more of the listings 104 associated with the particular advertiser 102. Different traffic metrics can relate to different periods of time, and different types of user 130 interactions.

[00303] At 370, advertisers 102 can choose to update their listings 104, including potentially changing the fee types 112 the advertiser 102 is willing to pay to the administrator 160 in light of the reports, described below, generated by the system 100.

C. User-Process Flow

[00304] Figure 12 is a flow chart diagram illustrating one example of a process that can be performed by a user 130 of the system 100.

[00305] At 372, the user 130 selects the request attributes 134 to be included in the request 132. This can involve making directory selections, as well as typing in text, or otherwise providing the input to better focus the desires of the user 130.

[00306] At 374, the user 130 submits the request 132.

[00307] At 376, the user 130 views the response 144.

[00308] At 378, the user 130 can use one of the listings 104 to activate a network link to an advertiser 102 website or other network location.

[00309] At 380, the user 130 can use the user interface 142 to return to the response 144.

[00310] At 382, the user 130 can view listings 104 belonging to the same response 144, but not displayed on the same screen. The user interface 142 can be used to scroll between different the pages on which the response 144 is displayed.

[00311] At 384, the user 130 can invoke a detailed view 127 of one or more listings 104 of interest.

[00312] At 386, the user 130 can invoke a "compare" function to place one selected listing 104 adjacent to another selected listing 104 in order to facilitate a comparison by the user 130.

[00313] At 388, the user 130 can invoke an automated communication to the advertiser 102 using the listing 104. This can involve sending an e-mail, a facsimile, a website posting, an Internet phone call, or any other type of communication known in the art.

IX. RESULT, RESPONSE, AND PLACEMENT HEURISTICS

[00314] As discussed above, the system 100 can use a variety of heuristics to identify matches, and to organize the appropriate response 144 that is transmitted to users 130. The following examples are provided solely for illustration purposes, and should not be interpreted to be an exhaustive list of potential configurations.

A. Pre-Defined Group-Based Placements

[00315] As discussed above, some embodiments of the system 100 use the priority metric 179 associated with each listing 104 to perform intra-group sequencing but not inter-group sequencing. Such embodiments can be referred to as intra-group competition embodiments because the priorities between groups 232 are already predetermined. In intra-group embodiments, the placement heuristic 174 provides that certain groups 232 occupy certain locations in the response 144 given the particular request attributes 134 provided by the user 130. All of the examples below presume a match with respect to the category selection 138. The key distinguishing factors then become the geography selection 136 and the fee types 112 relating to the listings 104.

1. City and Zip Cod Search

[00316] Figure 13 is a block diagram illustrating one example of a response 144 displayed on a screen in accordance with one embodiment of the placement heuristic 174 after the submission of a request 132 using city and/or zip code information. The request 132 submitted by the user 130 includes a local geography selection 136, and thus the response heuristic 172 in this particular example is configured to give priority to the smallest geographical regions (whether as a service area or the geographical scope of the advertiser 102).

[00317] On the left side of the screen are the various groups 232 with predetermined locations within the response 144. At the top left corner of the screen is a group of National Advertisers with Metro Service Areas (NMetro) 232.001 that match the geography selection 136 and possess per-hit fee amounts 113 that exceed $0.00/hit. The listings 104 associated with the applicable NMetro group 232.001 that possess the highest three priority metrics 179 are listed in order of their perspective priority metrics 179, NMetro1 (104.001), NMetro2 (104.002), and NMetro3 (104.003). As discussed above, the per-hit fee amount 113 associated with the various listings 104 can be one of many potential inputs to the priority metric 179 calculation.

[00318] The second group 232 displayed in the response 144 is the group 232 that includes local geography regions with local service areas (LCity) 232.002. This group 232.002 is also associated with per-hit fee amounts 113 that exceed $0.00/hit. The LCity listings 104 associated with the five highest priority metrics 179 within that group are displayed on the first screen, which is the screen displayed in the Figure.

[00319] The third group 232.003 displayed in the response 144 is made up of “premium advertisers” (P) (104.009-104.015), advertisers 102 associated with a monthly fixed fee 222. The priority metric 179 for this group 232.003 in this particular embodiment focuses on seniority, which is a particular example of a position adjustment factor 176 because all of the advertisers 102 in this group pay the same monthly fee.

[00320] The fourth group (alphabetic listings 232.004) at the bottom left hand portion of the screen are advertisers 102 sorted alphabetically. This group 232.004 can include both paid and unpaid listings 104. The priority metric 179 for this group provides "points" based solely on the relative position of the advertiser 102 name with respect to the sequence of the alphabet.

[00321] On the right side of the screen are sponsored links of national advertisers 102 regardless of the existence of a matching local service area (N) 232.005. N1 104.21, N2 104.22, and N3 104.23 are the top priority metric 179 listings associated with a per-hit fee amount 113. NFixed1 104.24, NFixed2 104.25, and NFixed3 104.26, are the three highest priority metrics 179 among the listings 104 associated with fixed fee amounts 111.

[00322] As disclosed in the Figure, the response 144 includes more than one web page of listings 104. National listings can be continued by activating the "National Listings Continued" link and local listings can be continued by activating the "Local Listings Continued" link.

a. Local Listings Continued

[00323] Figure 14 is a block diagram illustrating one example of the second screen of the response 144 in accordance with one embodiment of the placement heuristic 174 after the submission of a request using city and zip code information and subsequent scrolling by a user for more local listings.

[00324] The first group displayed on the screen is a continuation of the LCity group displayed in Figure 13. This group includes LCity6 104.027 through LCity10 104.031.

[00325] The second group displayed on the screen is a group that does not appear in Figure 13, it is the group of local listings with county-based service areas and non-zero per-hit amounts (LCounty) 232.007. LCounty1 104.032 through LCounty7 104.038 are sorted in order of the priority metric 179

[00326] The third group displayed on the screen is a continuation of the same premium advertiser group (P) 232.008 that appears on Figure 13.

[00327] The national sponsored links NFixed1 104.047 through NFixed3 104.052 on the right side of the screen are preferably the same national sponsored links that were displayed on the initial response 144 screen; however, these national sponsored links can be different.

b. National Listings Continu d

[00328] Figure 15 is a block diagram illustrating one example of the second screen of response 144 displayed on a continuation screen in accordance with one embodiments of the placement heuristic 174 after the submission of a request 132 using city and zip code information and subsequent scrolling by a user for more national listings.

[00329] The NMetro group 232.010 is a continuation of the NMetro group 232.001 on Figure 13. The priority metric 179 determines which listings 104 in this group 232.010 are displayed.

[00330] The next group 232 displayed on the screen is a group of national advertisers with state-level service areas (NState) 232.011. NState1 104.056 through NState5 104.060 are selected on the basis of their respective priority metric 179, which includes the per-hit fee amount 113 as one of the inputs.

[00331] The third group on the bottom left portion of the screen is made up of national listings without local or state service areas (group 232.012). This group 232.012 includes both fixed fee listings (104.066 and 104.067) as well as per-hit fee amount listings 104. In this particular example, the placement heuristic 174 reserves locations 6 and 7 within this group for fixed fee amount listings. This group 232.012 is an example of group that includes both per-hit and fixed fee listings in the same group. Such a characteristic is predefined by the administrator 160 in the form of the administrative rules 122.

[00332] The national listings on the right side of the screen are the same as on the two previous figures. Figures 13, 14, and 15 are all part of the same response 144.

2. State Search

[00333] Figure 16 is a block diagram illustrating one example of a response 144 displayed on a screen in accordance with one embodiment of the placement heuristic 174 after the submission of a request using state geography information.

[00334] The group on the top left side of the screen is made up of national listings with state service areas that are associated with per-hit amounts (NState) 232.014. NState1 104.077 through NState2 104.082 are sequenced by the placement heuristic 174 on the basis of the priority metric 179 associated with each listing. The priority metric 179 includes the per-hit fee amount as one on many forms of input.

[00335] The second group on the left side of the screen is made up of national listings without applicable state or local service areas. This group includes both fixed fee amount listings, such as NFixed1 104.088 through NFixed3 104.095 (a distinct subgroup of group 232.015) as well as per-hit fee amount listings, such as N1 104.083 through N10 104.094 (another distinct subgroup of group 232.015). Group 232.015 is an example of the placement heuristic 174 purposely interspersing fixed fee listings 104 and per-hit listings 104.

[00336] The national sponsored links on the right side of the screen are the same as those displayed on Figures 13-15.

3. Business Name or Phone Number Search

[00337] Figure 17 is a block diagram illustrating one example of a response displayed on a screen in accordance with one embodiment of the placement heuristic 174 after the submission of a request using a business name or phone number.

[00338] The first group at the top left hand side of the screen is selected on the basis of business names or phone number. Anywhere from 1-3 listings 104 will be displayed, depending on how many listings 104 correspond to the search criteria. For example, there should only be one advertiser 102 associated with a particular phone number, but multiple advertisers 102 may share the same name. Listings 104.102 through 104.104 in Group 232.017 can be sorted in accordance with priority metric 179.

[00339] The second group 232.018 is made up of national listings associated with metro service areas (NMetro). These listings 104 are made up of national advertisers 102 who have identified a metro service area for their listing 104 that corresponds to the geography selection 136 made by the user 130. The geography selection 136 by the user 130 can correspond to the geography relating to the phone number or business name, or the geography selection 136 can relate to an affirmative geography selection 136 made by the user 130. NMetro1 104.105 through NMetro3 104.107 can be sorted on the basis of priority metric 179 associated with those listings 104.

[00340] The third group is made up of local listings with city service areas (LCity) 232.019. These listings 104 are made up of local advertisers 102 who have identified a city service area for their listing 104 that corresponds to the geography selection 136 made by the user 130. The geography selection 136 by the user 130 can correspond to the geography relating to the phone number or business name, or the geography selection 136 can relate to an affirmative geography selection 136 made by the user 130. LCity1 104.108 through LCity5 104.112 are sorted on the basis of the priority metric 179 associated with those listings 104.

[00341] The fourth group is made of fixed fee listings 104 with the same fixed fee amount 111. Thus, the distinguishing input for the priority metric 179 is the seniority of each listing 104 with respect to the system 100.

[00342] The national sponsored links on the right hand of the screen are the same as those discussed above with respect to Figures 13-16.

4. National Search

[00343] Figure 18 is a block diagram illustrating one example of a response 144 displayed on a screen in accordance with one embodiment of the placement heuristic 174 after the submission of a request that includes a blank value for a geography selection 136. In some embodiments, a specific button or other interface mechanism allows the user 130 to expressly select a national search. In other embodiments, a national search is performed by an absence of a geography selection 136.

[00344] The sole group 232.024 on the left side of the screen is made up of national listings without reference to any subset of service areas. This group 232.024 is made up of two sub groups, a national per-hit group (N) 232.022 and a national fixed fee group (NFixed) 232.023. These two groups are interspersed on the left side of the screen in a predefined manner as set forth by the placement heuristic 174. The system 100 can incorporate a wide variety of different arrangements for two or more groups.

[00345] The national sponsors on the right side of the screen are a continuation of the NFixed group 232.023 on the left side of the screen.

B. Calculation of priority metrics in positioning of listings

1. Priority metrics used for intra-group sorting

[00346] Figure 19 is a block diagram illustrating one example of a bid-based approach where the listings are not displayed in order of bid amount. The positions of the three groups of listings 104 in Figure 19 are predefined by the placement heuristic 174. The intra-group positions are determined by comparing the priority metrics 179. Example A below provides an example of the underlying data that can result in the response 144 disclosed in Figure 19.

a. Example A

Advertiser	Display Order (Group)	Per-Hit Fee Amount	Enhanced Display Fee	Priority Metric Value	Position Adjustment Factor	Fixed Fee
N1	1	$0.50	$0.00	50	0	$0
N2	2	$0.55	$0.10	45	0	$0
N3	3	$0.60	$0.20	40	0	$0
L1	1	$0.39	$0.00	39	0	$0
L2	2	$0.40	$0.05	35	0	$0
L3	3	$0.40	$0.10	30	0	$0
L4	4	$0.28	$0.00	28	0	$0
L5	5	$0.30	$0.05	25	0	$0
P1	1	$0.00	$0.00	10	10	$100
P2	2	$0.00	$0.00	5	5	$100

[00347] Example A illustrates how the enhanced display fee 163 can add to the per-hit fee amount 113 for a listing 104, while decreasing the value of the per-hit fee amount 113 used to determine the priority metric 179. This is because less of the per-hit fee amount 113 is being allocated for priority metric 179 purposes. The per-hit fee amount 113 is not independent of other listing attributes 106. Thus, N2 and N3 involve a higher per-hit fee amount 113 than N1, but N1 has a higher priority metric 179. The factors by which the per-hit fee amount 113, the enhanced display fee 163, and the position adjustment factor 176 impact the priority metric 179 can vary from embodiment to embodiment. In the example above and below, there is a 1:1 ratio between all non-monetary amounts, a $1:$1 ratio between all monetary amounts, and a $0.01:1 ratio between all monetary amounts and all numerical factors. For example, the priority metric for N2 is = Per Hit Fee Amount – Enhanced Display Fee + Position Adjustment Factor ($0.55 - $0.10 + 0). Different embodiments may use different ratios. In some embodiments, different groups 232 within the same response can utilize different ratios. For the purposes of subsequent examples, the ratios will be kept constant.

b. Example B

Advertiser	Display Order (Group)	Per-Hit Fee Amount	Enhanced Display Fee	Priority Metric Value	Position Adjustment Factor	Fixed Fee
N1	1	$0.40	$0.00	50	10	$0
N2	2	$0.45	$0.00	45	0	$0
N3	3	$0.35	$0.00	44	9	$0
L1	1	$0.39	$0.00	39	0	$0
L2	2	$0.35	$0.00	35	0	$0

L3	3	$0.40	$0.00	40	0	$0
L4	4	$0.28	$0.00	28	0	$0
L5	5	$0.30	$0.00	25	0	$0
P1	1	$0.00	$0.00	10	10	$100
P2	2	$0.00	$0.00	15	5	$100

[00348] Example B illustrates how the position adjustment factor 176 can increase the value of the priority metric 179 such that listings 104 associated with lower per-hit fees 113 can end up with more desirable positions within the sequence.

c. Example C

Advertiser	Display Order (Group)	Per-Hit Fee Amount	Enhanced Display Fee	Priority Metric Value	Position Adjustment Factor	Fixed Fee
N1	1	$0.40	$0.00	50	10	$0
N2	2	$0.45	$0.10	45	10	$0
N3	3	$0.35	$0.00	35	0	$0
L1	1	$0.39	$0.00	39	0	$0
L2	2	$0.35	$0.00	35	0	$0
L3	3	$0.10	$0.00	40	30	$0
L4	4	$0.28	$0.00	28	0	$0
L5	5	$0.30	$0.05	25	0	$0
P1	1	$0.00	$0.00	10	10	$100
P2	2	$0.00	$0.00	5	5	$100

[00349] Example C illustrates an example that includes both enhanced display fees 163 and position adjustment factors 176. As illustrated in the example, these two attributes can offset each other to some extent.

d. Example D

Advertiser	Display Order (Group)	Per-Hit Fee Amount	Enhanced Display Fee	Priority Metric Value	Position Adjustment Factor	Fixed Fee
N1	1 or 2	$0.19	$0.00	20	0	$0
N2	1 or 2	$0.13	$0.00	20	0	$0
N3	3	$0.07	$0.00	10	0	$0
L1	1	$0.39	$0.00	39	0	$0
L2	2	$0.35	$0.00	35	0	$0
L3	3	$0.10	$0.00	40	30	$0
L4	4	$0.28	$0.00	28	0	$0
L5	5	$0.30	$0.05	25	0	$0
P1	1	$0.00	$0.00	10	10	$100
P2	2	$0.00	$0.00	5	5	$100

[00350] Example D illustrates an example that includes bid tiers 169 for the national advertisers 102. Bids from $0.01 through $0.10 belong to same tier. Bids $0.11 through $0.20 belong to the same tier, and so on and so forth. Within a bid tier 169, each listing 104 has the same priority metric 179.

e. Example E

Advertiser	Display Order (Group)	Per-Hit Fee Amount	Enhanced Display Fee	Priority Metric Value	Position Adjustment Factor	Fixed Fee
N1	1	$0.30	$0.00	30	0	$0
N2	2	$0.24	$0.00	24	0	$0
N3	3	$0.20	$0.00	20	0	$0
L1	1	$0.45	$0.00	45	0	$0
L2	2	$0.44	$0.00	44	0	$0
L3	3	$0.43	$0.00	43	0	$0
L4	4	$0.41	$0.00	41	0	$0
L5	5	$0.40	$0.00	40	0	$0
P1	1	$0.00	$0.00	10	10	$100
P2	2	$0.00	$0.00	5	5	$100

[00351] Example E illustrates an example where different groups have different minimum bids. In the example above, national listings have minimum per-hit fee amounts 113 of $0.20 while local listings have minimum per-hit fee amounts 113 of $0.40.

f. Example F

Advertiser	Display Order (Group)	Per-Hit Fee Amount	Enhanced Display Fee	Priority Metric Value	Position Adjustment Factor	Fixed Fee
N1	1	$0.60	$0.00	60	0	$0
N2	2	$0.50	$0.00	50	0	$0
N3	3	$0.40	$0.00	40	0	$0
L1	1	$0.70	$0.00	70	0	$0
L2	2	$0.65	$0.00	65	0	$0
L3	3	$0.60	$0.00	60	0	$0
L4	4	$0.55	$0.00	55	0	$0
L5	5	$0.50	$0.00	50	0	$0
P1	1	$0.00	$0.00	10	10	$100
P2	2	$0.00	$0.00	5	5	$100

[00352] Example F illustrates an example similar to Example E, except that in addition to the minimum bid restrictions, there are also minimum bid increments 167 for listings 104 in both the national and local groups. The minimum bid increment for national listings 104 in this example is $0.10 and the minimum bid increment for local listings 104 is $0.05. The minimum bid for national listings is $0.40 and the minimum bid for local listings is $0.50.

g. Example G

Advertiser	Display Order	Per-Hit Fee Amount	Enhanced Display Fee	Priority Metric Value	Position Adjustment Factor	Fixed Fee
N1	1	$0.54	$0.00	64	10	$0
N2	2	$0.58	$0.00	58	0	$0
N3	3	$0.57	$0.00	57	0	$0
N4	4	$0.56	$0.00	56	0	$0
N5	5	$0.55	$0.00	65	0	$0
N6	6	$0.54	$0.00	54	0	$0
N7	7	$0.53	$0.00	53	0	$0
N8	8	$0.52	$0.00	52	0	$0
N9	9	$0.51	$0.00	51	0	$0
N10	10	$0.50	$0.00	50	0	$0

[00353] Example G and subsequent examples do not relate to Figure 19. Example G illustrates an example of a single group response 144 where the listing 104 with the highest per-hit fee 113 does not possess the highest priority metric 179 due to a position adjustment factor 176 associated with another listing 104.

h. Example H

Advertiser	Display Order	Per-Hit Fee Amount	Priority Metric Value	Enhanced Display Fee	Priority Metric Value	Position Adjustment Factor	Fixed Fee
N1	1	$0.64	64	$0.00	64	0	$0
N2	2	$0.68	58	$0.10	58	0	$0
N3	3	$0.57	57	$0.00	57	0	$0
N4	4	$0.56	56	$0.00	56	0	$0
N5	5	$0.55	65	$0.00	65	0	$0
N6	6	$0.54	54	$0.00	54	0	$0
N7	7	$0.53	53	$0.00	53	0	$0
N8	8	$0.52	52	$0.00	52	0	$0
N9	9	$0.51	51	$0.00	51	0	$0
N10	10	$0.50	50	$0.00	50	0	$0

[00354] Example H illustrates an example of a single group response 144 where the listing 104 with the highest per-hit fee amount 113 does not possess the highest value for purposes of the priority metric 179 due to an enhanced display fee 163 relating to that listing 104.

i. Example I

Advertiser	Display Order	Per-Hit Fee Amount	Enhanced Display Fee	Priority Metric Value	Position Adjustment Factor	Fixed Fee
N1	1	$0.64	$0.00	64	0	$0
N2	2	$0.58	$0.00	58	0	$0
NFixed1	3	$0.00	$0.00	100	0	$100
N3	4	$0.56	$0.00	56	0	$0
N4	5	$0.55	$0.00	65	0	$0
N5	6	$0.54	$0.00	54	0	$0
N6	7	$0.53	$0.00	53	0	$0
N7	8	$0.52	$0.00	52	0	$0
N8	9	$0.51	$0.00	51	0	$0
N9	10	$0.50	$0.00	50	0	$0

[00355] Example I illustrates an example of a multiple-group response that is not sorted in order determined by the priority metric 179 because the two groups within the response have pre-defined slots reserved for a certain number of listings 104 in those groups 232. In Example I, the third spot in the display order is reserved for fixed-fee listings 104 while spots 1,2, and 4-10 are reserved for per-hit fee amount 113 listings 104 determined in accordance with the priority metric 179. In example I, the prioritization metric 179 is limited to intra-group comparisons.

j. Example J

Advertiser	Display Order	Per-Hit Fee Type 1	Per-Hit Fee Type 2	Enhanced Display Fee	Priority Metric Value	Position Adjustment Factor
N1	1	$0.10	$0.64	$0.00	65	0
N2	2	$0.40	$0.58	$0.00	62	0
N3	3	$0.60	$0.56	$0.00	62	0
N4	4	$0.20	$0.55	$0.00	57	0
N5	5	$0.00	$0.54	$0.00	54	0
N6	6	$0.00	$0.53	$0.00	53	0
N7	7	$0.10	$0.52	$0.00	53	0
N8	8	$0.10	$0.51	$0.00	52	0
N9	9	$1.00	$0.10	$0.00	20	0

[00356] Example J illustrates an example of a single-group response 144 that is sorted on the basis of the priority metric 179. Example J involves a situation where there is more than one type of per hit fee amount 113. For example, the per hit fee type 2 could relate to "map hits" to the advertiser's 102 website, while per hit fee type 1 could relate to "web hits." Map hits, web hits, and other types of hits are described in greater detail above. Different embodiments can involve a wide variety of different weights given to different types of per hit fee types in the calculation of the priority metric 179.

k. Example K

Advertiser	Display Order	Per-Hit Fee Amount	Enhanced Display Fee	Priority Metric Value	Relevance Metric	Popularity Metric
N1	1	$0.20	$0.00	80	10	50
N2	2	$0.58	$0.00	78	10	10
N3	3	$0.56	$0.00	74	0	18
N4	4	$0.63	$0.00	68	5	0
N5	5	$0.64	$0.00	64	0	0
N6	6	$0.53	$0.00	63	10	0
N7	7	$0.38	$0.00	53	15	0
N8	8	$0.51	$0.00	51	0	0
N9	9	$0.10	$0.00	10	0	0

[00357] Example K illustrates an example of a single-group response 144 that is sorted on the basis of the priority metric 179. Example K involves a situation where a relevance metric and a popularity metric are incorporated into the process of determining the priority metric 179 and there is a 1:1 ratio between all non-monetary amounts, a $1:$1 ratio between all monetary amounts and a $0.01:1 ratio between all monetary amounts and non-monetary amounts.

l. Example L

Advertiser	Display Order	Per-Hit Fee Type 1	Per-Hit Fee Type 2	Priority Metric Value	Hit Threshold	Time Frame (hours)
N1	1	$0.10	$0.80	65	1000	24
N2	2	$0.40	$0.60	62	500	36
N3	3	$0.60	$0.40	62	1000	24
N4	4	$0.20	$0.20	57	0	0
N5	5	$0.00	$0.00	54	0	0
N6	6	$0.00	$0.00	53	0	0
N7	7	$0.10	$0.10	53	0	0
N8	8	$0.10	$0.10	52	0	0
N9	9	$1.00	$1.00	20	0	0

[00358] Example L illustrates an example of a per-hit fee adjustment based on a pre-determined hit threshold. The column "Per-hit fee type 1" illustrates the fee paid for a number of hits within a predetermined time represented by the column "Time Frame" that are less than the number illustrated in the column "Hit Threshold". Once the hit threshold is reached each additional hit within the pre-determined time will be in accordance with the corresponding listing associated with the column "Per-Hit Fee Type 2". In the example, the per-hit fee for N1 increases from $0.10 to $0.80 if there are more than 1000 hits within 24 hours. The adjustment for N2 is activated after only 500 hits within 36 hours. In contrast to N1 and N2, N3 pays less per-hit once the hit threshold is reached. In many embodiments, the pre-determined time will be fixed and adjustments made to the hit threshold. Thus, the time frame will not be explicitly provided as a variable.

[00359] It is possible to have different fees as the number of hits within the pre-determined time continues to increase in accordance with a step function. In this example, only a single adjustment is shown.

2. Priority metrics used for inter-group sorting

[00360] In a preferred embodiment, the prioritization metric 179 is limited to intra-group sequencing. In alternative embodiments, it may be used for inter-group sequencing, as illustrated in Example M

Advertiser	#	Per-Hit Fee Amount	Enhanced Display Fee	Priority Metric Value	Position Adjustment Factor	Fixed Fee	Category Factor	Geography Factor
LCity1	1	$0.40	$0.00	80	0	$0	10	30
LCity2	2	$0.41	$0.06	75	0	$0	10	30
LFixed1	3	$0.00	$0.00	75	0	$50	5	20
N1	4	$0.35	$0.00	65	0	$0	30	0
LFixed2	5	$0.00	$0.00	63	0	$43	0	20
N2	6	$0.31	$0.00	61	0	$0	30	0
NFixed1	7	$0.00	$0.00	60	0	$40	20	0
LCity3	8	$0.08	$0.00	38	0	$0	0	30
N3	9	$0.20	$0.00	20	0	$0	0	0

[00361] In many embodiments, the priority metric 179 will involve different ratios when dealing with fixed monetary amounts 111 than in the context of a per hit fee amount 113. Typically, the fixed fee will need to be divided by some number in order to prevent all fixed fee listings 104 from dominating the per-hit fee listings 104. In the example above, the fixed fee amount for LFixed1 is divided by 100 before being added to the category factor and the geography factor.

C. Use of information within the Detailed View

[00362] Information within the detailed view 127 of a listing 104 can be taken into consideration by the system 100 in providing results and responses 144 to requests 132. For example, the user 130 submitting the request 132 might be interested in a particular brand of a digital camera. The category hierarchy 164 may not have enough levels to include brand identities within the category hierarchy 164. However, if the detailed view 127 for a particular listing 104 includes the particular brand, the priority metric 179 can be adjusted accordingly so that the listing 104, which includes the particular brand, receives more favorable treatment than it otherwise would. Different embodiments can use different processes for modifying the position metric 179 for a listing 104 on the basis of information within the detailed view 127 of the listing 104.

X. INTERFACE VIEWS

A. Request Submission Page

[00363] Figure 20 is a screen print illustrating an example of a request submission web page that includes various high-level categories (e.g. level 1 categories 182), and some more detailed categories (e.g. level 2 categories 184). As illustrated in the Figure, request attributes 134 can take the form of directory selections as well as the input of data by the user 130. Request attributes 134 can include text describing the product, such as brand information. Requests 132 can also include the name of a particular advertiser 102. As indicated by the word "optional," all of the geographic selections 136 are optional with respect to the particular embodiment displayed in the Figure. Other embodiments may involve different rules regarding what is or is not required. As indicated on the left side of the Figure, the illustrated embodiment provides users 130 with the ability to save requests 132, responses 144, and potentially other types of information.

[00364] Figure 21 is a screen print illustrating an example of a request submission web page with a text string corresponding to a category selection entered by a user 130. Although the text string does not directly equate to any of the category headings displayed on the screen, submission of the text string "furniture" would constitute a category selection 138. The submission of such a request 132 would invoke the system 100 to identify the appropriate category within the category hierarchy 164 described above.

[00365] Figure 22 is a screen print illustrating an example of a request submission web page with text strings corresponding to a category selection

138 and a geography selection 136 entered by a user 130. This Figure provides an example of request 132 that includes both a non-null category selection 138 and a non-null geography selection 136.

[00366] Figure 23 is a screen print illustrating an example of a request submission web page displaying more detailed sub-categories associated with the higher furniture category. The categories displayed on this screen are all sub-categories of the furniture category. Thus, the potential category selections 138 on this page are significantly lower on the category hierarchy 164 than in Figures 20-22 discussed above. In some embodiments, as displayed in Figure 23, fixed fee amount listings 104 can be displayed on the more detailed directory pages.

B. Response Page

[00367] Figure 24 is a screen print illustrating an example of a web page displaying listings 104 associated with the sub-category of "room accessories." This Figure illustrates an example of a user drilling down the directory of Figure 23, and ultimately running out of lower category level options. The system 100 reacted to the request 132 of a "room accessories" category selection 138 and a "null" or "blank" geographic selection 136. The user 130 is in the process of modifying their request 132 so that a geography selection 136 of White Plains, NY will be sent to the system 100.

[00368] Figure 25a is a top portion of a screen print illustrating an example of a web page displaying listings 104 associated with the antiques sub-category. Unlike the example in Figure 24, Figure 25a provides an example where there are non-null inputs for both the category selection 138 and the geography selection 136. This Figure also illustrates "compare" check boxes and a "compare" button for invoking the compare function described above. The various subdivisions among the listings 104 indicate that several different groups 232 are included in the displayed response 144. Figure 25b is a bottom portion of the screen print in Figure 25a.

[00369] Figure 26a is a top portion of a screen print illustrating an example of a web page displaying listings 104 associated with the furniture category and a local geography. The listings 104 displayed on this screen illustrate some examples of enhanced displays meriting the charge of an enhanced display fee 163. For example, two of the listings 104 include text that is substantially larger in size than the other listings 104. A logo for "Freedmans furniture" is shown. Other listings 104 include a click through icon with the words "Click Here!" and the icons themselves are different. Various listings 104 include additional useful information. The various subdivisions among the listings 104 indicate that several different groups 232 are included in the displayed response 144. Figure 26b is a bottom portion of the screen print of Figure 26a.

[00370] Figure 27a is a top portion of a screen print illustrating an example of a web page displaying listings 104 associated with the furniture category and a local geography. According to the note at the top of the screen, the system 100 has some reason to believe that the user 130 is interested in the antiques sub-category (see bottom of Figure 27a and top of Figure 27b). This could be due to a user profile, recent navigations by the user 130, or some other historical attribute. Figure 27b is a bottom portion of the screen print in Figure 27a.

[00371] Figure 28a is a top portion of a screen print illustrating an example of a web page displaying listings associated with the furniture category and a local geography, including two listings that have been selected for the purposes of a "compare" function. (See Figure 36 for the result of selecting the comparison function). Figure 28b is the bottom portion of the screen print in Figure 28b.

[00372] Figure 29a is a top portion of a screen print illustrating an example of a web page displaying listings associated with the furniture category and a local geography. The sub-category "living room" is highlighted from a sub-category selection window, and the top of the screen explains that the submit button should be pressed to include the category selection 138 of "living room" as part of the request 132. Figure 29b is the bottom portion of a screen print in Figure 29a.

[00373] Figure 30a is a top portion of a screen print illustrating an example of a web page displaying listings associated with the furniture category and a local geography. The user 130 has activated the phone link for one of the listings 104, and the top of the screen is displaying the appropriate message. Figure 30b is the bottom portion of the screen print in Figure 30a.

[00374] Figure 31a is a top portion of a screen print illustrating an example of a web page displaying listings associated with the "living room" sub-category and a local geography. In accordance with the message at the top of the screen, the e-mail link for one of the listings 104 has been highlighted, but not yet activated. Figure 31b is the bottom portion of the screen print in Figure 31b.

C. Contact Information Page

[00375] Figure 32 is a screen print illustrating an example of an advertiser contact information web page. Different advertisers 102 can include a wide variety of different contact information. One feature disclosed on this screen is the ability to invoke an Internet phone service by clicking on the phone link. Some embodiments may provide for an automated fax service. The contact information can be saved by the user 130 for future use.

D. Bid Selection Page

[00376] Figure 33 is a screen print illustrating an example of a bid entry web page for use by advertisers 102. Each of the checkboxes is associated with a different geographical region, and each region can be associated with a separate bid amount. The functionality of this screen is configured by the administrative rules 122 discussed above. If the particular embodiment of the system 100 includes minimum fees 165, minimum bid increments 167, bid tiers 169, or enhanced display fees 163, those restrictions can be represented on the web page accessed by the advertiser 102.

E. Advertiser Report Page

[00377] Figure 34 is a screen print illustrating an example of a monthly report web page accessible by advertisers 102. The disclosed web page also provides a "change" feature for the advertiser 102 to alter their bid with respect to a particular listing 104. As indicated by the Figure, categories with hierarchical relationships with each other can be associated with different bid amounts and other fees. Sofas, furniture, and interior decorating are each categories with direct relationships with each other.

F. Detailed View of a Listing

[00378] Figure 35a is a top portion of a screen print illustrating an example of a detailed view 127 of a listing 104. Figure 35b is the bottom portion of the screen print in Figure 35a. Different detailed views 127 within the same response 144 may display different listing attributes 106. The administrative rules 122 can be configured to restrict certain listing attributes 106, while requiring other listing attributes 106.

G. Compare Screen

[00379] Figure 36 is a screen print illustrating an example of a "compare" feature. Two listings 104 are displayed adjacent to each other. In alternative embodiments, different physical layouts can be used to facilitate the comparison of two or more listings 104.

H. Directions Page

[00380] Figure 37a is the bottom portion of a screen print illustrating an example of a "directions" feature. To reach this screen, the user 130 clicked on a "directions" link for a listing 104 within the response 144. Figure 37b is the top portion of the screen print in Figure 37b.

I. E-mail Function

[00381] Figure 38 is a screen print illustrating an example of an "e-mail" feature. E-mail links within the various listings 104 can be configured so that the advertiser 102 is made aware of the fact that the user 130 obtained the e-mail address for the advertiser 102 through the system 100. This allows the advertiser 102 to monitor the number of communications that result from system 100 communications. A per e-mail charge can be incorporated into the business relationship between the advertiser 102 and the administrator 160.

XI. ALTERNATIVE EMBODIMENTS

[00382] In accordance with the provisions of the patent statutes, the principles and modes of operation of this invention have been explained and illustrated in preferred embodiments. However, it must be understood that this invention may be practiced otherwise than is specifically explained and illustrated without departing from its spirit or scope.